

CITY OF SAN DIEGO

JURISDICTIONAL URBAN RUNOFF MANAGEMENT PROGRAM 2006-2007 ANNUAL REPORT

VOLUME 1 OF 4

JANUARY 2008



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1 EXECUTIVE SUMMARY

San Diego is a beautiful city with its picturesque coastline and bountiful aquatic resources. In addition to supporting an abundance of wildlife, San Diego's natural surface water resources—its creeks, beaches and bays—provide miles of recreational opportunities for residents and serves as the centerpiece to San Diego's tourist industry. Pollution in urban runoff has the potential to harm the region's creeks, beaches, and bays and threatens its social and economic quality of life. Preserving San Diego's natural water resources is one of the most important goals of the City of San Diego (City). The Storm Water Pollution Prevention Division (Storm Water Division) was designated as the lead City agency to achieve this goal.

The City's Urban Runoff Management Plan establishes the blueprint for actions that the City would take to protect and improve the water quality of the creeks, beaches, and bays in the region and achieve compliance with San Diego Regional Water Quality Control Board Order Number 2001-01 (Municipal Permit). The plan, adopted by the City Council in January 2002, outlines a phased implementation approach allowing for increased activities as additional funding is identified.

As with the previous five years, the City has worked diligently over the past year to implement the Urban Runoff Management Plan. In addition, the City leveraged its resources in program areas that could achieve the most efficient benefits to water quality: special projects, which leverage funding and efforts in the region; education and training efforts in pollution prevention, and good housekeeping activities.

1.1 PROGRAM ACCOMPLISHMENTS

1.1.1 Special Projects

Special projects are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. The City's Storm Water Division achieved significant benefits to water quality beyond its FY 2007 \$13.5 million budget by leveraging approximately \$14 million (this amount includes both grant and match funding) in special projects, as summarized below. In addition to these water quality improvement projects, the Storm Water Division also participated in six Total Maximum Daily Load (TMDL) programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems.

Table 1-1. Summary of Special Project Accomplishments in FY 2007.

Project	Accomplishments in FY 2007	Project Budget (Grant & Match Funding)
<i>Areas of Special Biological Significance (ASBS) Project Planning</i>	The City continued to work with the Scripps Institution of Oceanography and San Diego Coastkeeper to develop the La Jolla Integrated Coastal Watershed Management Plan (ICWMP). The Draft ICWMP was completed in June 2007 and submitted to the SWRCB and the community for review and input. The City applied to the SWRCB for additional grant funding under the 2005-2006 Consolidated Grants Program in 2006.	\$678, 942

Project	Accomplishments in FY 2007	Project Budget (Grant & Match Funding)
<i>Areas of Special Biological Significance Dry Weather Flow and Pollution Control Program</i>	The City applied to the SWRCB for additional grant funding under the 2005-2006 Consolidated Grants Program in 2006. The City was awarded grant funding in FY 2007 for the installation of dry weather diversions within the La Jolla ASBS watershed.	\$4,500,000
<i>San Diego Watersheds Common Ground Project: San Diego Bay Watershed Demonstration</i>	The City continued to work with its partners and consultant in the creation of a GIS- and web-based database to track and analyze conditions and trends associated with the region's water resources. Final comments from the Grant Manager on the draft report were incorporated and the Final Project Report was submitted to the Regional Board Grant Manager on March 1, 2007. The report provided an assessment of the success of the project to meet the primary goals of the project as stated in the Grant Agreement. The Final Report presented the findings of this assessment based on the work completed and survey data from the four workshops. The outcome of the project was that the goals had been met. Several recommendations were also presented included the funding of a regional data management program that can use the data, data management tools, mapping tools and educational content to continue to address these goals in the region.	\$1,362,645
<i>Mission Bay Computerized Irrigation Control System Project</i>	The post-construction monitoring was completed in October 2006. The final Project Report was submitted to the State Grant Manager in FY 2007.	\$1,336,455
<i>Chollas Creek Water Quality Protection and Habitat Enhancement Project</i>	Final design plans and construction specifications have been completed for the project, including the environmental permits. The City completed a public bidding process for the construction plans and specifications. The City continued to implement the education and outreach components of the grant project to residential and industrial sectors of the community.	\$2,799,317
<i>Rose and Tecolote Creeks Water Quality Improvement Projects</i>	The City completed the construction of one baffle-box in the Tecolote Creek sub-watershed at Mount Ashmun Street and the system was operational.	\$2,000,000
<i>Ocean Beach–San Diego River Water Quality Improvements</i>	Construction of the flap gate was completed in November 2006, and the project was completed in December 2006. The schedule for completion was extended due to the need to re-bid the project due to significant increase in concrete costs due to Hurricane Katrina impacts on the construction material sector.	\$2,072,953
Total value of special projects:		\$14,750,312

1.1.2 *Education and Outreach*

The City's Storm Water Pollution Prevention Program goals for its FY 2007 public information campaign remain the original core goals from the initiation of the program. These goals are as follows:

- Increase awareness that storm water flows to water bodies untreated
- Change behaviors from those that pollute water bodies to those that do not
- Increase awareness of the *Think Blue* slogan

June 30, 2007, concluded the seventh year of the *Think Blue* Media, Education, and Public Advocacy Campaign. The campaign was able to put forth a broad, multifaceted effort, which included educating and training municipal employees, targeting external audiences as identified in the Municipal Permit (residential, business, and industrial audiences as well as school-aged children and the construction and development sectors), participating in grant education and outreach activities, and actively participating in regional outreach and education efforts with the Copermitees.

1.1.3 *Enforcement*

In FY 2007, the Storm Water Division received 2,157 contacts from the public and others. The public awareness and activism contributed to 1,964 investigations, 456 Administrative Citations, 880 Notices of Violation, and 157 Civil Penalties being issued to polluters for violating the Storm Water Ordinance (San Diego Municipal Code §43.03). The remainder of the contacts (193) were not related to potential storm water enforcement issues and resolved in other manners. The breakdown of investigations in Figure 1-1 shows investigator efforts in response to calls. The fact that many people reported wastewater violations indicates the public's growing awareness and ability to recognize prohibited discharges. Other issues to consider are the willingness to report on a single violator (perhaps a neighbor) versus willingness to report on an agency. Through the City's enforcement efforts, numerous sources of storm water pollution were identified and abated.

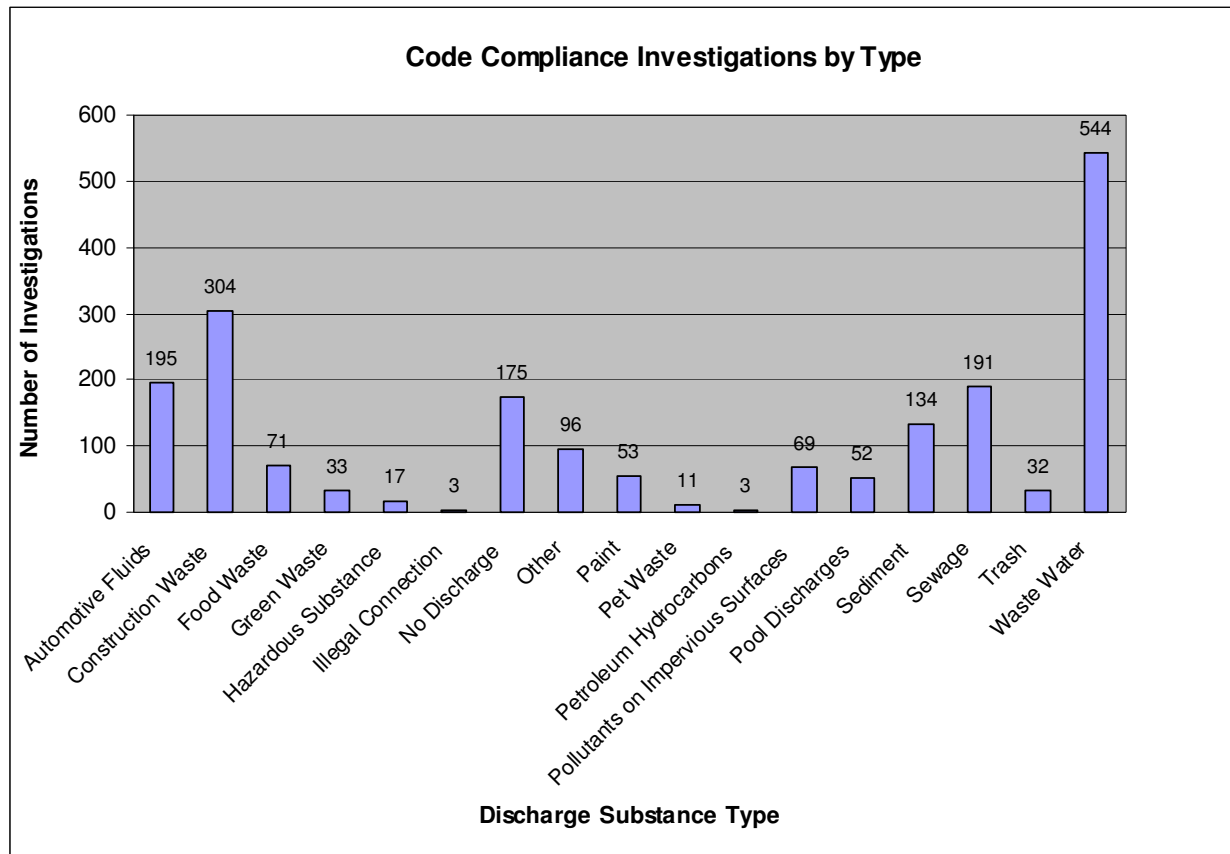


Figure 1-1. Code Compliance Investigation by Type.

1.1.4 Water Quality Monitoring

The City's Storm Water Division staff conducted routine water quality monitoring at 12 coastal beach and five lagoon sites on a monthly basis from November to March and on a semimonthly basis from April to October. Staff also conducted routine water quality monitoring at 302 Dry Weather Monitoring sites from May through September to help the City identify and characterize sources of pollution.

1.1.5 Development and Construction

The City continued to refine and improve its implementation of permanent storm water controls in new public and private development projects with continued internal staff training in FY 2007.

1.1.6 Industrial and Commercial Programs

The City continued to expand its industrial and commercial programs in order to institute effective measures to reduce pollutants. This year's efforts included the inspection of 255 industrial facilities and 5,064 commercial facilities. Beginning in April 2004, a mailing insert has accompanied business license renewals and business tax certificate mailings to inform businesses of storm water best management practices requirements and ordinances. This information reached approximately 76,000 businesses in FY 2007.

1.1.7 *Municipal Activities*

The City continued to place emphasis on storm water pollution prevention practices and awareness integrated into all field operations and activities at municipal facilities in FY 2007. Notable efforts in FY 2007 include:

- Street Division conducted street sweeping of nearly 77,311 curb miles and collected approximately 5,850 tons of debris.
- Street Division cleaned 7,219 storm drain structures, 8,950 feet (2.21 miles) of drainage pipe, and 3.11 miles of drainage channels, removing 9,816 tons of debris from the storm drain system.
- In total, the Street Division's street sweeping and storm drain system cleaning activities removed 15,665 tons of debris from the City's storm drain system in FY 2007.
- The Environmental Services Department cleaned or collected over 3,300.36 tons of trash, debris and recyclables in FY 2007.
- As another broad indicator of the overall effectiveness of the City's water quality protection efforts, specifically from the Metropolitan Wastewater Department, the City continued to reduce the number of sewer spills from 365 spills in 2000 to 85 in 2007, a 76.7 percent reduction since 2000 (see Figure 1-2). Although root intrusions caused a slight increase in the number of spills in FY 2007 compared to FY 2006, it is assumed that the reduction in sewer spills throughout the years has resulted in reductions to the amount of sewage discharged into the region's waterbodies and that discharge quality has improved. The City feels that their JURMP water quality protection efforts contributed to these gains. To address the slight increase, MWWD televised sewer lines to check for issues such as root intrusions as part of their preventative maintenance program.

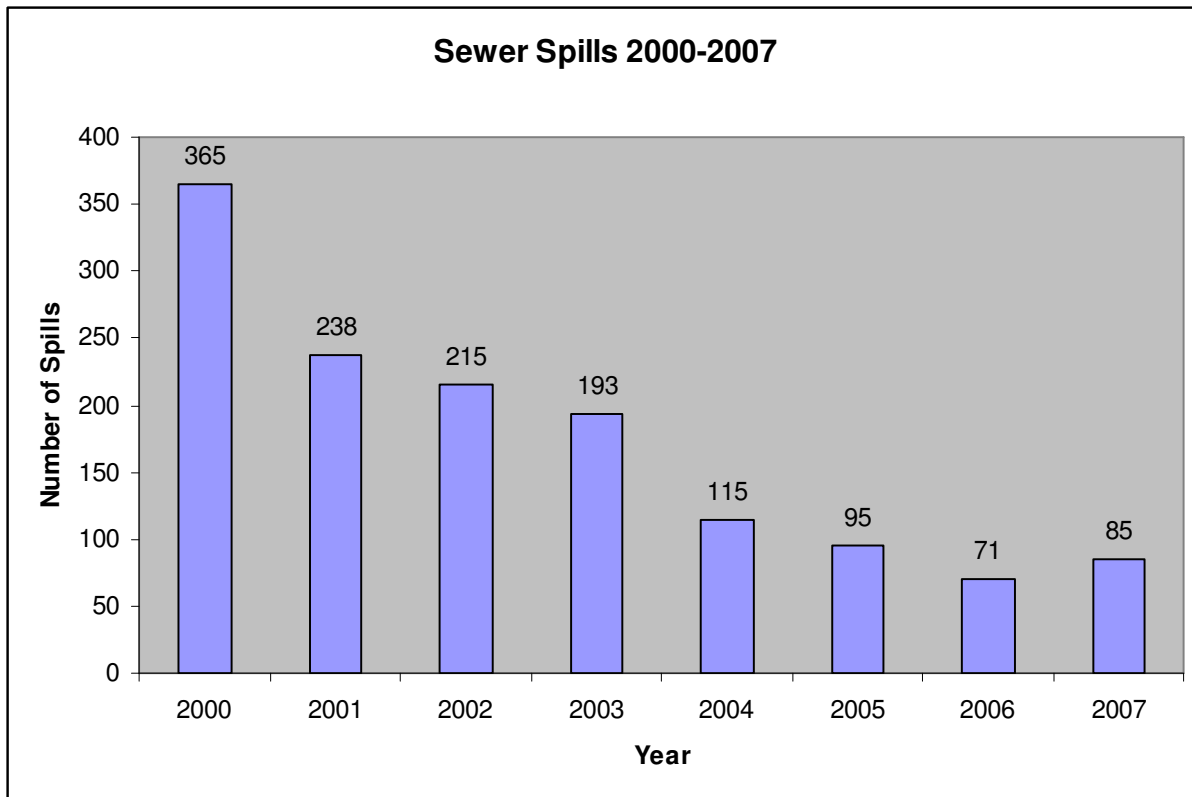


Figure 1-2. City of San Diego Sewer Spills from 2000 - 2007.

1.1.8 Focused Water Quality Efforts – Watershed Programs

The City is a part of six watersheds as defined by San Diego Regional Water Quality Control Board Order Number 2001-01 (Municipal Permit). However, in actuality, watershed scale is relative. For example, all areas within the City are also part of the San Diego Basin, a larger watershed draining Western San Diego County into the Pacific Ocean. It is at this larger watershed scale that watershed implementation of many programs, such as inspection or enforcement programs, are most efficiently implemented Citywide due to economies of scale and City structure.

Although the City's implementation may often occur jurisdictionally, watersheds, and in many cases sub-watersheds, form the appropriate scale for analysis of water quality problems and identification of pollution sources. Independently, and in coordination with other jurisdictions in the region, the City will continue to pursue focused, watershed-based source identification efforts throughout the City's six watersheds, as defined by the Municipal Permit.

1.2 FUTURE DIRECTIONS

Currently, the City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, Total Maximum Daily Loads (TMDLs), Areas of Special Biological Significance (ASBS), and Cleanup and Abatement Orders (CAOs). By setting stringent water quality standards that the City must meet, these regulatory programs, in effect, mandate the implementation of structural (e.g., capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is necessary to avoid

overlapping efforts, wasted resources, and loss of time. Therefore, the City is taking an integrated, "Strategic Approach" towards meeting the requirements of these regulatory programs simultaneously. The Storm Water Division began planning for a "Strategic Approach" to implementation in FY 2006 and continued this effort in FY 2007. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose watersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as data and experience is gained from the watershed-based efforts.

The City will be working with the other Copermittees in refining their reporting and effectiveness assessment standards to facilitate cross-jurisdictional and cross-programmatic comparisons and evaluations. It is anticipated that the refined standards would lead to a more regionally integrated approach to water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Storm Water Division will be using the program updates that will be required by the next Municipal Permit as an opportunity to coordinate with its various departments and further increase City employee awareness of storm water pollution prevention principles as they go about their daily business. The commencement of the process to update the JURMPs and WURMPs and develop the RURMP will provide the context for achieving these City objectives.

The City will continue to pursue alternative funding sources for urban runoff management and water quality protection to support the anticipated expansion of the programs over time. Currently, the City is benefiting from a number of grant-funded projects that will reduce pollutants. Meaningful special studies to identify the pollutant sources are also being conducted. The City will continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. Staff will continue to work closely with the other storm water program managers in the region to collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches and bays for future generations.

To provide focus for program improvements in FY 2008, the Storm Water Division has identified the following objectives:

- Continue strategic, integrated approach to planning program efforts;
- Refinement and/or expansion of the Division's data management and tracking capabilities;
- Improvements in monitoring to aide in program and activity effectiveness assessment;
- Refinement/increase in municipal training;
- Revising and updating of the City's JURMP in response to Order No. 2007-0001;
- Implementation of new requirements in accordance with Order No. 2007-0001.

1.3 RESPONSE TO REGIONAL BOARD COMMENT LETTER (SWU:10-5015.02:CARIAS)

This Annual Report also contains responses to the comments provided by the Regional Board in its September 26, 2007 letter (SWU:10-5015.02:carias) to the City. Text in this Annual Report addressing a specific comment notes the comment number and refers to Appendix A, which includes a copy of the Regional Board comment letter.

2 INTRODUCTION

2.1 PROGRAM OVERVIEW FOR FISCAL YEAR 2007

The mission of the Storm Water Pollution Prevention Division (Storm Water Division) is to:

“Protect and improve the water quality of rivers, bays, and the ocean for the citizens of San Diego and future generations by eliminating and reducing pollutants in urban runoff and storm water in an efficient, effective, and professional manner as part of a high-performing team through public education, employee training, watershed collaboration, field testing, investigations, enforcement, regional programs, and coordination.”

The Storm Water Division in the General Services Department is the lead office for the efforts of the City of San Diego (City) to reduce pollutants in urban runoff and storm water to the maximum extent practicable and achieve compliance with San Diego Regional Water Quality Control Board (Regional Board) Order Number 2001-01 NPDES No. CAS0108758 (Municipal Permit).

In order to improve and protect our region's natural water resources, the Storm Water Division is actively engaged in a number of activities that will cumulatively result in improvements to water quality. The Citywide blueprint for protecting natural water resources is the Jurisdictional Urban Runoff Management Plan (JURMP), adopted by the City Council on January 28, 2002. The primary activities that the City continues to implement include, but are not limited to, public education, employee training, water quality monitoring, source identification, code enforcement, watershed management, and storm water best management practices development and implementation within the City's jurisdictional boundaries. While the City is implementing the JURMP within the City's jurisdictional boundaries, implementation of the Watershed Urban Runoff Management Program (WURMP) and the Total Maximum Daily Load (TMDL) programs are also occurring in conjunction with other stakeholders and jurisdictions to improve water quality not only within the City's jurisdictional boundaries but also in its watersheds.

The Storm Water Division represents the City on storm water and Municipal Permit issues before the Principal Permittee (County of San Diego) and the Regional Board. In addition, the Storm Water Division provides technical expertise and guidance to all City departments to ensure implementation and compliance with the Municipal Permit. Furthermore, the Storm Water Division prepares and transmits this annual report of all City activities governed by the Municipal Permit to the County of San Diego for submittal to the Regional Board and is the responsible entity that certifies that the City is in compliance with all Municipal Permit requirements.

2.2 REPORT ORGANIZATION

This Fiscal Year (FY) 2007 Annual Report has been organized into sections matching the table of contents agreed to and submitted by the Copermittees to the Regional Board. Like the FY 2006 report, the City continued to include several sections not identified in the table of contents submitted by the Copermittees, namely: Enforcement, Monitoring, and Special Projects.

Each section of the FY 2007 Annual Report is consistent with the components of the Municipal Permit and, where applicable, identifies priority pollutant sources, applicable requirements, and notable implementation efforts.

2.3 REPORTING PERIOD

This Annual Report provides information for FY 2007: July 1, 2006, to June 30, 2007.

2.4 RESPONSE TO REGIONAL WATER QUALITY CONTROL BOARD COMMENTS

This Annual Report also contains responses to the comments provided by the Regional Board in its September 26, 2007 letter (SWU:10-5015.02:carias) to the City. Text in this Annual Report addressing a specific comment notes the comment number and refers to Appendix A, which includes a copy of the Regional Board comment letter.

3 MUNICIPAL

The City continued to implement and assess its JURMP for municipal facilities and activities in FY 2007. Storm Water Division staff held periodic JURMP management meetings with key personnel from various City departments to address municipal issues and ensure that program objectives and Municipal Permit requirements were met. This section identifies the actions the City took during the reporting period to meet these objectives and requirements.

3.1 PRIORITY SOURCES

There were no updates to the inventory during FY 2007.

3.2 BEST MANAGEMENT PRACTICE (BMP) REQUIREMENTS

The City implemented BMPs consistent with those set forth throughout Chapter 2, *Storm Water Best Management Practices*, of the City's JURMP, including the implementation of Storm Water Pollution Prevention Plans (also called Water Quality Management Plans). City departmental personnel implemented the City's *Storm Water Management and Discharge Control Ordinance* (§43.03 of the Municipal Code) and additional internal departmental policies were established to reduce pollution in urban runoff.

3.3 BMP IMPLEMENTATION

The City implemented BMPs, including pollution prevention measures, to prevent and reduce pollutants in runoff from municipal areas and activities. BMPs that were implemented during FY 2007 are summarized below according to municipal facility and/or activity.

3.3.1 *Municipal Areas/Activities*

3.3.1.1 *Roadways*

The City currently maintains over 2,800 miles of roadways and alleys. The Street Division is responsible for inventorying, inspecting, maintaining, and repairing all roadway structures. For a detailed description of the BMPs implemented by the Street Division for roadway operations, refer to the Street Division's FY 2007 *Activity Reporting Form* in Appendix B.

Street Sweeping

The targeted street sweeping schedule for Street Division is based on generalized location and is summarized in Table 3-1. Actual street sweeping frequencies may be more or less frequent in specific areas of the City, depending on the identification and sweeping of new or known problem areas, and unique events (e.g., fires). Refer to Appendix B for the record of the actual street sweeping schedule that occurred in FY 2007.

Table 3-1. General Street Sweeping Schedule.

Location	Frequency
Downtown	5 times per week
Residential	Once every other month*
Commercial/Office/Industrial	Once per week

* Many routes located in the Chollas watershed were swept once a month

Areas surrounding Chollas Creek in the Chollas Creek watershed are considered priority areas. The area has a total of 694 curb miles. In FY 2007 sixty-six (66) curb miles were swept once a month on residential routes, and sixty-eight (68) curb miles were swept on commercial routes four times a month to prevent pollutants from entering watercourses. In addition, where possible, sub-watershed areas with water bodies identified on the Clean Water Act Section 303(d) List of Water Quality Limited Segments as impaired for sediment received additional sweeping as part of commercial and residential sweeping routes as noted in Appendix B. In total, the Street Division conducted street sweeping of approximately **77,311 curb miles and collected 5,850 tons of debris** in FY 2007.

Roadway Field Operations

The Street Division continued to implement site-specific BMP plans during roadway field operations including painting and asphalt or concrete repair activities. During FY 2007 the Street Division repaired 53,496 potholes City-wide. These repairs help to reduce the amount of broken asphalt and loose dirt that could potentially enter the City's storm drain system. Material collected from Street Division's roadway field operations (i.e., dredged material, litter, debris, and sediment from streets or storm drains) was collected and properly transported to a designated materials decanting site. BMPs were used during transport to ensure that material did not escape from the vehicles. Materials were dried prior to disposal following site-specific BMPs. For example, excess water from the material was captured, collected, and properly disposed of, and perimeter BMPs were properly maintained to ensure effectiveness.

Street Sweeper Maintenance

Sweeper operators are each responsible for the daily maintenance of their assigned sweeper, which includes washing, changing gutter brooms, lubricating all necessary fittings, checking and cleaning all filters, and checking for fluid leaks.

Daily washing of the sweepers and the vactors occurred at municipal yards in designated wash areas. These wash areas collect all runoff into a sump. The water is then vacuumed by a vactor truck weekly and deposited into the wastewater collection system. Any solid material is removed from the sump and dried at the materials decanting location discussed above and then deposited at the appropriate landfill. Each vactor or sweeper operator is required to properly complete a vehicle operator's daily inspection report that is kept on file for two years.

3.3.1.2 Municipal Separate Storm Sewer System (MS4)

The City has over 75,000 storm drain structures and 889 miles of drainage pipe. The Street Division is responsible for the inspection, maintenance, and repair of the MS4 in the public right-of-way and in drainage easements. The Street Division regularly inspected the City's MS4 and surrounding areas and removed and properly disposed of sediment, debris, and trash from the storm conveyance channels, storm drains, and

catch basins through hand cleaning, mechanical removal, and street sweeping. The Street Division also identified problem areas and conducted additional cleaning, where necessary, and recorded information about cleaning frequencies and material removed. In addition, the Street Division operated a daily, round-the-clock telephone hotline (619-527-7500) and online service request program (<http://apps.sandiego.gov/streetdiv/>) to address citizens' request for services.

In FY 2007, the Street Division continued efforts to update the map of the City's drainage infrastructure. Specifically, efforts focused on the hiring of an environmental consultant to continue mapping, surveying, and preparing of a Programmatic Environmental Impact Report and Resource Agency Permits to conduct City-wide storm drain conveyance system cleaning and maintenance. The Street Division also added two staff to increase the speed at which drainage systems are electronically entered into GIS.

In FY 2007, the Street Division continued efforts to develop a plan for the televising and evaluation of the City's corrugated metal pipes for their eventual full replacement. Replacement of the pipes will help minimize significant risk to life and property and result in water quality improvements through a decrease in slope failures, erosion, and downstream sedimentation.

MS4 Debris Removal

The storm drain system was inspected and cleaned as described below.

- Drainage structures that empty into or are adjacent to a body of water were identified, inspected, and cleaned before the wet season began.
- Drains designated as problem areas based on field observations were identified, inspected, and cleaned twice a year.

Material collected from cleaning operations was properly transported to the appropriate disposal site. Absorbent material was used during transport to prevent liquids from leaking. Material that was removed by machine cleaning (the vacuumed substance removed from the storm drain system by vector trucks) was disposed of at the materials decanting site with proper BMPs (discussed in Section 3.3.1.1 above).

During FY 2007, the Street Division inspected **11,395 storm drain structures** (15.2% of the 75,000 structures in the City), cleaned **7,219 storm drain structures** (9.6%), **8,950 feet (1.70 miles) of drainage pipe**, and **3.11 miles of drainage channels**. A total of **9,816 tons of debris** was removed directly from the storm water conveyance system, including open channels. In combination with the Street Division's street sweeping activities discussed in Section 3.3.1.1 above, **the Street Division removed 15,665 tons of debris from the City's storm drain system in FY 2007.**

The City increased the inspection and cleaning of the storm drain structures and drainage channel from FY 2006. *In response to Comment 1 of the RWQCB City of San Diego FY 2006 Annual Report Comment letter (Appendix A), the City received additional funding for FY 2008 that will help to increase the City's inspection and cleaning (if necessary) efforts. It is important to note that the maximum extent practicable for inspection and cleaning of storm drain structures, drainage channels, and drainage pipe will vary in reporting periods based on variable factors including the amount of rainfall received and natural events, such as the recent wildfires. These factors significantly*

impact efforts by redirecting resources. Furthermore, the total weight of debris removed from channels has been reduced dramatically over the past few years due to environmental requirements restricting channel cleaning operations. The City will continue to study alternative funding sources, including an increase in the current storm drain fee, to enhance its storm drain structure inspection and cleaning efforts in future fiscal years. Based on the Mayor's current 5-year financial outlook, expenditures on storm water-related activities are anticipated to rise significantly.

Cleanup Activities

Other measures and operations were conducted to help reduce pollutants from the City's MS4.

In FY 2007, the Environmental Services Department collected trash and debris during cleanup activities and events throughout the year that had the potential to be transported to the City's MS4 or directly to drainages and water bodies. Table 3-2 summarizes these activities.

Table 3-2. Environmental Services Cleanup Data.

Event/Activity	Trash/Debris Collected (tons)
Public calls for cleanup (13,621 calls) of illegal dumping, litter, transient encampments, etc.	2,272
Debris clearing at Ridgehaven building	1
Public calls regarding dead animals (2,968 calls)	54
Community Cleanup Events (80)	974
Total Trash/Debris*:	3,301
*Note: Total excludes City-sponsored cleanup events identified in the City's six Watershed Urban Runoff Management Plan Fiscal Year 2007 Annual Reports, and municipal trash collection services, which collected and properly disposed of 359,965 tons of trash and a total of 70,503 tons of curbside recyclables and 31,513 curbside greenery in FY 2007.	

In addition, the Environmental Services Department collected **5,427 tons of household hazardous wastes (HHW) in FY 2007** as shown in Table 3-3 below.

Table 3-3. Environmental Services HHW Collection Data.

Event/Activity	HHW Collected (tons)
Load Check Program	13
Auto Product Recycling Events	40
HHW Transfer Facility	429
Door-to-Door Collection	5
Certified Oil Collection Centers (waste oil and oil filters)	4,940
Total HHW:	5,427

By law, HHW cannot be collected through regular refuse collection. When HHW is found, drivers tag the waste. The tag explains the proper disposal method for the HHW and the

City's hotline (1-800-694-7000) where more information can be obtained on proper HHW disposal methods.

Although HHW collection is a service provided by the Environmental Services Department for reasons beyond those of storm water pollution prevention, it is reasonable to conclude that additional hazardous waste is not being dumped into the storm drain system and is instead being properly collected due to the Environmental Services Department's educational and collection efforts. Refer to the department's FY 2007 *Activity Reporting Form* in Appendix B for more details.

Low Flow Diversion System

The City's Low Flow Diversion System is designed to capture urban runoff or sewage overflows from the City's MS4 during dry conditions and divert them to the City's wastewater collection system for treatment at the Point Loma Water Treatment Plant. In FY 2007, the City operated and maintained 53 Low Flow Diversion Facilities (47 in Mission Bay and 6 in the coastal areas). The facilities have proven to be extremely effective in capturing and diverting urban runoff and sewage overflows before they reach our coastal waters.

Stencils

Stencils with the storm water message and picture as shown here were created in FY 2003 to be used at storm drain inlets at municipal facilities. Stenciling is an effective way to educate the public and discourage illegal dumping into the storm drain.



In FY 2007 The Storm Water Division continued to work with other City departments to identify existing and new storm drain inlets on municipal properties to be stenciled.

Figure 3-1. Storm Drain Inlet Stencil.

In addition, the City distributed copies of the Mylar stencil and specifications for creating the stencil to the non-profit organization *I Love A Clean San Diego* (ILACSD). ILACSD used the stencil for all volunteer stenciling activities the organization conducts in the City. During FY 2007, 468 volunteers worked 646 hours to stencil 754 storm drains in the City of San Diego.

To ensure that new storm drains are marked during construction of both private and public development projects, the Storm Water Division coordinated with the Development Services Department and Field Engineering Division to write standard development permit language requiring contractors to concrete stamp or use a decal-type disc to mark all new storm drains. This requirement was in effect for all of FY 2007.

For public and private contractors, the Storm Water Division posted the specifications for creating a stencil on the City's *Think Blue* website (<http://www.ThinkBlueSD.org>).

3.3.1.3 Wastewater Collection System (including Wastewater Treatment Plants and Pump Stations)

The Metropolitan Wastewater Department (MWWD) is responsible for the collection and conveyance of wastewater from residences and businesses in the City of San Diego, serving a 330 square mile area with a population of 1.3 million people. MWWD currently

maintains over 3,000 miles of City sewer main line with over 250,000 city connections. MWWD also maintains a GIS inventory of wastewater structures. During FY 2007, the department conducted field inspections and televised sewer lines to monitor the condition of sewer lines, which can reveal blockages from debris to roots to grease and show pipeline cracks, breaks, or deterioration. Through proactive maintenance, spills or leaks to the storm drain system were minimized.

With the passage of four annual sewer rate increases by the Mayor and City Council in October 2001, MWWD embarked on an aggressive Sewer Spill Reduction Program. The results of this program are readily apparent in a sharp decrease in the number of sewer spills in the City. **The number of sewer spills in the City dropped from 193 in FY 2003 to 115 in FY 2004 to 95 in FY 2005 to 71 in FY 2006. In FY 2007 the City had 85 sewer spills, an increase from 71 during FY 2006. The cause of the increase in sewer spills was due to root intrusion.** To address this, MWWD televised sewer lines to check for issues such as root intrusions as part of their preventative maintenance program.

The notable accomplishments MWWD completed in FY 2007 to help reduce the number of sewer spills and protect water quality include:

- Replacement of 0.69 miles of sewer line
- Rehabilitation of 26 miles of sewer line
- Televising of 103 miles of sewer line
- Cleaning of 2,034 miles of sewer line
- Food Establishment Wastewater Discharge (FEWD) performed:
 - 4,809 facility inspections
 - 1,254 permit inspections
 - 4,421 Grease Removal Equipment inspections
 - Issued 1,360 permits
- Continuation of BMP implementation at 11 treatment facilities and pump stations as part of Storm Water Pollution Prevention Plans (SWPPPs) prepared in accordance with the State General Industrial NPDES Permit
- Quarterly inspections by Safety & Training personnel of 11 MWWD facilities with Industrial Permit SWPPPs
- Implementation of emergency BMPs at all sewer spills to quickly contain spills and minimize discharges.
- Development and implementation of standard operating procedures called IMAPs (interim maintenance access plans) for field crews working in the right of way
- Strategic installation of canyon access paths to minimize impacts to wetlands and water quality

MWWD also continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and businesses on the proper disposal alternatives for fats, oils, and grease and provide residents a place to dispose oil and grease at the Miramar Landfill. This program is described in greater detail in Section 6.3.3.

While monitoring storm drain runoff at dry weather monitoring stations, in FY 2007, the City's Storm Water Division also continued to investigate other possible sources of pollutants, including leaking or broken sewer lines. Monitoring staff tested water samples and documented odors of suspect flows. In FY 2007, there were no referrals to MWWD regarding potential spills.

Staff Training. MWWD continued to offer internal general storm water training classes to those employees unfamiliar with the Department's commitment to storm water pollution prevention. In FY 2007, MWWD conducted 13 general training classes (1,134 attendees) which covered storm water principles.

3.3.1.4 *Water System*

The Water Department owns and operates the potable water supply and distribution system for the residents of the City. The City's water system includes 3,000 miles of pipeline, 49 pump stations, three treatment plants, 32 potable water reservoirs, nine raw water reservoirs, and eight groundwater basins. Some of the City's water resources (raw water reservoirs and groundwater basins) are located outside the City limits. The system serves 1.3 million City customers and provides water and water storage to other municipalities and water districts in San Diego County.

In FY 2005, the Water Department received ISO 14001 Certification after its Water Operations Division successfully implemented the ISO 14001 Environmental Management System (ISO 14001 EMS) program. Under this program, the Water Department establishes annual objectives and targets for improvements in environmental performance, and Department employees perform their daily activities with an increased awareness and commitment to water quality protection and pollution prevention. In FY 2007, the Water Department continued to implement ISO 14001 Certification requirements, which included implementation of BMPs during cleaning and construction, responsible material delivery and storage, habitat/water quality protection, hazardous waste management, etc.

The Water Operations Division also maintains a Watershed/Storm Water Program that strives to meet the objectives set forth in the City's JURMP. In FY 2007, the Watershed/Storm Water Program continued to enforce existing municipal BMPs, perform storm water site inspections at Department facilities, conduct staff storm water training with the help of Water Department training personnel, and perform external education and outreach. Details on the Water Department's accomplishments are provided below.

Storm Water Pollution Prevention Plans (SWPPPs). The Water Department continued to implement previously produced SWPPPs for each of its water treatment plants (Alvarado, Miramar, and Otay) and its maintenance and equipment facilities at the Chollas and San Vicente municipal yards. Construction projects are underway at all three water treatment facilities to meet the future water demands of the City. Each facility is undergoing an expansion to provide increased treatment capacity, and the SWPPP for each facility is updated to reflect these changes as necessary. In FY 2007, the Water Department continued to use as-needed consultants to monitor and inspect the construction activities at these water treatment facilities and other large construction sites to ensure the implementation of the operational and construction SWPPPs.

Currently, the Water Department maintains 32 potable water distribution reservoirs and 49 pump stations as part of the overall water distribution system. Providing a SWPPP for each of these facilities is considered unnecessary since most pump stations occupy a small area with little if any outdoor activities and, therefore, contribute little runoff. The distribution reservoirs occupy a much larger area but are surrounded by landscaped buffer zones that serve to collect most of the runoff produced on site. A pollution prevention matrix has been developed as an alternative SWPPP. It lists each facility and the main storm water issues related to the facility.

Facility Inspections. In FY 2007, the Water Department frequently inspected all its high priority facilities, namely the water treatment plants and the municipal yards. Monthly site inspections, which included a visual walk-through inspection, were performed by facility maintenance employees. Staff prepared and sent out advisory e-mails to all project and construction managers at the start of the rainy season and in advance of predicted storm events, which reminded them of the need to monitor and maintain storm water BMPs before, during, and after anticipated storm events. A thorough inspection and assessment of each high priority site was performed in September 2006 as part of the annual pre-wet season inspections. If necessary, structural BMPs were immediately repaired or replaced or scheduled for replacement if applicable. All comments and suggestions noted on the monthly inspection forms were reviewed, and corrective actions were taken for each site. The SWPPP for each high priority site was maintained by the Water Department's Operations Division and updated as necessary.

The Water Department's distribution reservoirs and pump stations have been classified as low priority by the Watersheds/Storm Water Program. Every pump station and reservoir was inspected at least once per quarter, those facilities that are known to accumulate significant amounts of leaves, pine needles, and other debris were inspected more frequently. Deficiencies that were noted during these inspections were assessed during the pre-wet season inspection of these facilities. Deficiencies that were reported on the inspection forms were corrected before the beginning of the wet season if possible.

Staff Training. In FY 2007, the Water Department continued to integrate storm water pollution prevention courses into its training program. These courses included instruction on proper BMP selection and installation, spill containment, good housekeeping practices during cleaning and construction, responsible material delivery and storage, solid waste recycling management, and overall water quality protection. Table 3-4 summarizes the staff training conducted by the Department.

Table 3-4. FY 2007 Water Department Storm Water Staff Training.

Course Name	Course Length	Number of Courses	Number of Attendees
WU14SW01: Storm Water Pollution Prevention (General)	1 hour	13	122
WU14SW10: Storm Water Pollution Prevention Dams and Reservoirs (Lakes)	1 hour	2	5
WU14ZW13: Storm Water Pollution Prevention (Field Operations)	2 hours	2	22
WU1SW07: Storm Water BMPs (Policy Refresher)	1 hour	6	356
Tailgate Training (general storm water topics; BMP implementation; good housekeeping)	Varied	unknown	unknown

In FY 2007, the Water Department continued to produce and display posters throughout various work areas to celebrate employee commitment to working in an environmentally-sensitive manner. Photos featured employees integrating environmental awareness into their jobs, such as carefully handling hazardous waste materials, cleaning up at the jobsite, and recycling paper. They also served as reminders to Department employees of their role in protecting the environment including water quality and valuing customer service in complying with ISO 14001 EMS standards.

3.3.1.5 *Airports*

The City operates two general aviation airports: Brown Field and Montgomery Field. Operations at these facilities are conducted in compliance with General Industrial Permit requirements and according to the storm water program described in the facilities' SWPPPs, and Section 2.1.1, *Airports*, of the City's Urban Runoff Management Plan. BMPs implemented at these facilities, including inspection and monitoring information, are described within each facility's SWPPP.

Numerous industrial tenants and activities comprise airport operations. Therefore, in FY 2007, the City continued to rely on storm water representatives at each airport to work with tenant managers and owners to ensure storm water requirements are implemented at all times. Representatives also worked with vendors and the Environmental Services Department to ensure that hazardous materials, such as fuel/oil, batteries, and cleaning solvents, were stored and used appropriately and that hazardous wastes were disposed of properly.

Facility Inspections. In FY 2007, the aviation facilities, including tenant space, were inspected per the procedures outlined in their facility SWPPPs. The following inspections were conducted at Brown Field: two industrial activity area observations and four BMP evaluations and observations. No deficiencies were noted during all Brown Field inspections. The following inspections were conducted at Montgomery Field: three industrial activity area observations; and eight BMP evaluations and observations. No deficiencies were noted during all Montgomery Field inspections.

For a description of the BMPs implemented by the City and its tenants at its aviation facilities, refer to the Brown Field's and Montgomery Field's FY 2007 *Activity Reporting Forms* in Appendix B.

Staff Training. In FY 2007, one of the four members (25%) of the Brown Field staff received storm water training, and two of the 10 members (20%) of the Montgomery Field staff received training. It was not necessary to train the other staff as their duties do not impact storm water quality.

3.3.1.6 *Solid Waste Facilities*

The City of San Diego currently operates and maintains one active and six inactive landfills. During the reporting period, activities in compliance with General Industrial Permit requirements were performed at all active and inactive landfills, and the BMPs established in each facility SWPPP were implemented. A summary of the BMPs implemented at City-operated landfills is provided below:

Active Landfill (West Miramar Landfill)

The Environmental Services Department (ESD) maintains the siltation basins at the landfill to ensure effectiveness. Material from the basins was collected when necessary and disposed of according to current regulations. Erosion and sediment control measures, including mulch, tackifier, and straw wattles were put in place, where necessary. Concrete and asphalt areas, including parking areas, were swept monthly and hand sweeping was done as needed. Monthly inspections were performed at the site to ensure the working condition of BMPs and drainage structures. Hazardous wastes were properly stored according to current regulations and inspected on a weekly basis.

Inactive Landfills

In FY 2007, erosion and sediment control measures (such as mulch) were put in place, where necessary. Quarterly inspections were performed at the sites to ensure working condition of BMPs and drainage structures.

For detailed information about the BMPs implemented at City landfills, refer to ESD's FY 2007 *Activity Reporting Form* in Appendix B.

3.3.1.7 Solid Waste Services

Program achievements during FY 2007 include: numerous workshops and presentations on various topics, including recycling, energy, and composting; holding community recycling events; informing residents about recycling and various programs through public service announcements and newsletters; implementing recycling programs for City staff; and conducting awards ceremonies to recognize businesses for implementing environmentally-sound practices.

BMPs continued to be implemented during trash collection activities in FY 2007. For example, each trash truck carried sand, and additional sand was stored in containers at the Miramar Operations Yard to be used in the event of hydraulic/fluid spills. Vehicle operators were trained to cover an oil spill with sand and to protect nearby storm drains.

3.3.1.8 Household Hazardous Waste Transfer Facilities

ESD implements the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection, and remediation of hazardous substances, including HHW, from municipal facilities, other City departments, residents, and vacant land. ESD operates one permanent HHW Transfer Facility at Miramar Landfill, as well as several temporary collection facilities throughout the City. A summary of the BMPs implemented in FY 2007 at these facilities is provided below.

Parking Lots/Landscaped Areas

Erosion and sediment control measures, such as mulch, woodchips, and silt fences, were implemented and maintained at the transfer facilities, where necessary. Asphalted areas were swept monthly using mechanical street sweepers and hand sweeping was performed, as needed. Absorbent materials were used to clean up any fluids leaking from vehicles, which were sent to the Equipment Division for repairs.

Trash Bins/Roll-offs

Measures were taken to prevent pollution from trash bins and roll-off containers. Lids or covers were provided for trash bins and kept closed. Empty containers were bagged prior to being placed inside roll-off containers. Cardboard bins were covered or stored under cover.

HHW Operations Area

Sorting and packaging of hazardous waste were performed only in designated areas. BMPs were implemented when loading and unloading hazardous wastes from vehicles and in designated areas to prevent pollution from potential spills. All hazardous wastes were stored inside in storage lockers equipped with fire suppression and secondary containment, or outside on secondary containment pallets and covered. The storm drain at the site was protected with a gate valve and kept closed during hours of operation. Storage areas were inspected weekly for leaks.

Temporary Facilities

To prevent potential spills, sorting and packaging of hazardous waste was performed only in designated areas. BMPs were implemented when loading and unloading hazardous wastes from vehicles and in designated areas. Leaking material was immediately packaged into containers. Wastes were packaged in drums or pumped into a truck for transportation. Steps were taken to ensure that nearby storm drains and other areas were protected with BMPs. All wastes were removed from the site at the end of the day. Waste materials were stored on pallets. If inclement weather was predicted, BMPs were implemented to prevent waste materials from coming into contact with precipitation. Good housekeeping measures were implemented at all sites. Hand sweeping and litter pickup were performed at the end of collection events, as needed. Operations such as hand washing stations were conducted on pervious areas.

For more detailed information on BMPs conducted at HHW facilities, refer to ESD's FY 2007 *Activity Reporting Form* provided in Appendix B.

3.3.1.9 *Qualcomm Stadium*

The City owns and operates Qualcomm Stadium, a multi-purpose facility built to accommodate a wide variety of activities, including field events, such as baseball, football, concerts, and soccer matches, and parking lot activities, such as new and used car sales, auto racing, community service events, and RV shows. Qualcomm Stadium's water quality protection activities are described in a SWPPP for the 166-acre site. A summary of the BMPs implemented at Qualcomm Stadium in FY 2007 is provided below.

- The areas immediately surrounding all storm drains located inside the Stadium were re-stenciled in white with blue lettering to convey the message: *Think Blue – No Dumping – Goes To Ocean / No Tire Nada – Llega al Mar*.
- The dirt pile stored on site (6,000 cubic yards of soil) used for dirt show events was sprayed with an anti-erosion hydro-mulch stabilizer to prevent soil from getting into the storm drains. In addition, sandbags (three stacks high) were placed around the entire dirt pile along with K-Rail in the more susceptible areas to prevent soil erosion.

- Sandbags were set around storm drains along the field perimeter and around those located at the West Tunnel loading dock. All storm drains located in the Stadium's parking lots where major annual events take place (e.g. auto/RV shows) were covered and sealed to prevent any liquids or solids from entering during the events. Stadium representatives monitored the storm drains to ensure they were protected.
- During stadium wash-downs that followed events, street sweepers were used to capture any water that might have migrated across the parking lots before it reached the storm drains. All trash was cleaned as quickly as possible to reduce the possibility of trash being blown or washed into the storm drain system. In addition, Stadium staff and the San Diego Urban Corps implemented an aggressive and comprehensive cleaning program to capture recyclable trash immediately following events to successfully minimize recyclables making their way to the landfill and storm drains. The stadium received the City of San Diego "Director's Recycling Award" for 2007 from the Environmental Services Department for these efforts.
- Stadium staff and a Storm Water Division representative met with parking lot vendors and clients on site and discussed storm drain issues and proper storm drain management and protection methods. All parking lot contracts, agreements, and permits issued to clients and vendors included enforceable language on proper storm drain protection, including the use of sandbags and grate covers.
- During the Street Scene production meetings leading up to the event held in early August 2006, Stadium staff reviewed storm drain protection policies with the promoter. Included in the contract for use of the parking lots was language on covering all affected storm drains to prevent anything from entering the storm water conveyance system throughout the setup, two-day show, and teardown. Prior to and during the event, Stadium staff monitored the storm drains to ensure that they were protected throughout the event, as well as during the setup and teardown.

For more detailed information about BMPs implemented at Qualcomm Stadium, refer to the Stadium's FY 2007 *Annual Reporting Form* provided in Appendix B.

Facility Inspections. In FY 2007, almost daily inspections were performed throughout the Stadium property to detect and prevent any existing and potential problems associated with water and debris reaching the storm water conveyance system. Sandbags around storm drains were inspected, trash was cleaned away from storm drains and grates, and all storm drains that were to be impacted by events were inspected for proper coverings. Refer to the completed *Municipal Inspection Form* for Qualcomm Stadium in Appendix B.

Staff Training. In FY 2007, all Stadium staff received regular training on storm drain issues by way of tailgate meetings. Items covered during the meetings included the importance of keeping storm drains clean and clear by not allowing anything to enter them. Each staff member was trained on the proper response for illicit discharges. In total, 10 storm water staff training events were held. Thirty-two employees (68%) received training on activity-specific storm water principles.

3.3.1.10 *Municipal Yards and Operation Stations*

City departments perform a variety of activities at the three municipal yards (Chollas Operations Yard, Rose Canyon Operations Yard, and the Central Operations Station [also called "20th & B"] and other operation areas. During FY 2007, City departments operating at the three municipal yards implemented SWPPPs. A summary of BMPs implemented at the municipal yards is provided below.

Sweeping

Parking lots and operation areas were swept at three municipal yards either by hand or by street sweeping vehicles. Some areas, such as the sand storage area, were swept based on a schedule, while other lower priority areas were swept as needed. For example, the Facilities Maintenance Division's areas at the 20th & B Operations Station were swept quarterly. Two street sweepers purchased by the Environmental Services Department and the Water Department in FY 2003 were used to facilitate routine maintenance and cleanup at municipal facilities. An additional small street sweeper was purchased by the Equipment Division and used at the Rose Canyon Operations Yard.

Trash

Municipal yards were inspected at least once annually for litter and debris (among other issues) and cleaned as needed. High use areas with the greatest potential to collect trash/debris were generally inspected and swept more frequently as part of employees' standard procedures. Municipal grounds, including parking areas, were kept free of trash and other items that could possibly enter the MS4. "Annual Yard Cleanup Days" were conducted at three yards to clean municipal grounds of litter and debris and involve City staff in performing good housekeeping measures.

Trash receptacles were provided throughout municipal yards and emptied as needed. Trash bins were provided with lids and kept closed. Where necessary, overhead cover for open recycling bins was provided to prevent contact with storm water. Trash receptacles were washed in designated areas to prevent wash water from entering the MS4.

Materials Storage

Materials at municipal yards were properly stored to prevent pollutants from entering the MS4. Where possible, materials, such as used batteries, were stored inside. BMPs such as tarps, secondary containment, or berms were used when materials were stored outside. Materials were stored away from storm drain inlets and in many cases were placed on pallets off the ground. Hazardous materials/waste was always stored inside or within secondary containment areas.

During FY 2007 after a review of the materials stored in the Chollas Operations Yard the Street Division discontinued the use of a thermoplastic bonding product whose hazmat components created a potential for storm water contamination. Street Division arranged with the City's hazmat disposal contactor to remove this product from the Chollas Yard and will no longer use it in field applications.

Vehicle Maintenance/Operations

The Equipment Division of the General Services Department maintains approximately 2,400 vehicles. The division dedicated one crew member to maintain all wash/steam racks and automated truck washes at each applicable municipal yard. These crew members were trained in activity-specific storm water issues and conducted bi-weekly inspections.



Figure 3-2. Grass Swale at Municipal Yard.

Drip pans were used for vehicles to capture any automotive fluids from potential leaks. Vehicle repairs were performed indoors, when possible, with the exception of minor repairs that did not involve fluids. Absorbent materials were used to clean up any fluids leaking from a vehicle.

Structural BMPs installed in FY 2003 at the 20th and B Operations Station vehicle wash area continued to be used to reduce and prevent excess water from discharging to the MS4. In addition, berms constructed in FY 2003 to contain runoff in other areas where vehicles are washed also continued to prevent excess water from discharging to the MS4.

Equipment Division personnel continued to implement good housekeeping practices, such as regular sweeping instead of hosing down of the municipal yard.

At the Chollas Operations Yard, a major remodel of the fuel island was completed in FY 2005. It included grade and elevation changes to control runoff, installation of a storm water sump with filtering system, and installation of a canopy. In FY 2007, the storm drain filter/separator serving the fuel island was cleaned on a monthly basis.

Spill Prevention and Cleanup

BMPs, such as good housekeeping and materials for spill capture and cleanup, were used to prevent pollutants from entering the MS4. Absorbent materials were used in many areas, such as around storage bins and as mats in garage areas, to catch leaks. These materials, in addition to spill kits, were made available in the event of an accidental spill. Procedures were also put in place for the prompt containment and cleanup of spills. Catch basins and drip pans were commonly used to capture leaks. Materials such as fiber rolls were used around selected storage bins and drain inlets.

Erosion and Sediment Control

Erosion and sediment control measures, such as silt fences, were implemented at municipal facilities as needed to prevent sediment from being transported to the MS4. At the Chollas Operations Yard, the Street Division replaced standard gravel bags with new longer-lasting Kevlar bags at the Roadways materials storage area, created a berm and weir to control runoff from the storage area, and installed a silt fence and Kevlar bags to

reduce sediment runoff. These BMPs were maintained on a quarterly basis or as needed during the rainy season.

Other BMPs

- Wood pallets were used to place all Electrical Section stored material off the ground.
- Sumps contained runoff from washrack areas. These sumps were maintained and cleaned out as needed.
- Measures such as gravel bags, straw wattles, and grass swales were used to protect storm drain inlets.
- Activities were performed inside, where possible.
- Operations conducted outside were contained, when possible, and areas were cleaned up when activities were completed.
- All debris, such as paint, concrete, plaster, etc. occurring as a result of operations was disposed of properly.
- Soilfloc™ was dispensed in the main silt basin at the West Miramar Landfill to enhance the settling of silt and clay (small particles) before discharging to San Clemente Creek.
- Silt-laden runoff was pumped from the main silt basin at the West Miramar Landfill between storm events and redispersed into the top deck mulch area.
- Silt was removed from the main silt basin at the West Miramar Landfill.
- Silt fencing was maintained at the active West Miramar Landfill.
- Mulch was applied to slopes at the West Miramar Landfill as needed.
- Tackifier was applied to selected landfill slopes as needed.
- Straw wattles were added to landfill slopes where necessary.

Inspection

Municipal areas were inspected at various frequencies (bi-weekly, monthly, quarterly) to ensure that BMPs were in good working order and that grounds were free of debris and spills and leaks from equipment or materials. At a minimum, all municipal yards and operations stations were inspected once in FY 2007.

For detailed BMPs implemented at municipal yards and operations stations, refer to the Equipment Division's, Street Division's, Environmental Services Department's, Water Department's, and the Facilities Maintenance Division's FY 2007 *Annual Reporting Forms* provided in Appendix B.

3.3.1.11 Environmental Services Department Facilities

The Environmental Services Department continued to implement the following BMPs at the Ridgehaven Court "Green Building" in FY 2007:

- Excess and fallen debris/vegetation was collected from the surrounding canyons to prevent from entering the storm drain system.
- Walkways were swept daily to remove trash and debris.

3.3.1.12 Parks and Recreational Facilities

The City's Park and Recreation Department is responsible for overseeing and maintaining 39,441 acres of developed and undeveloped park land and open space; 337 parks including Balboa Park, Mission Trails Regional Park, and Mission Bay Park; 25

miles of shoreline from Sunset Cliffs to La Jolla; 13 pools that are open year round; three public golf complexes; 51 recreation centers; and 25 tennis sites.

In FY 2007, the Park and Recreation Department continued to implement its *Master Set of Best Management Practices Manual*, which was developed as a storm water pollution prevention reference guide for employees. The Manual includes 31 specific BMPs that are divided into four categories: organic, maintenance, chemical, and administrative. The Manual was developed to provide employees with a standard and consistent approach for performing job activities and reducing and eliminating impacts to water quality.

Staff Training. In FY 2007, 220 Park and Recreation Department employees received training in activity-specific storm water principles, 69 received general storm water principle training and 232 supervisors received training on collection of data for storm water annual reports. In total, twenty eight storm-water-related training sessions were conducted.

Cleanup Activities. In FY 2007, the Park and Recreation Department collected, through staff and contract programs, over 48,100 tons of trash. Cleanups were conducted during and after major holidays (e.g., Independence Day).

Facility Inspections. In FY 2007, the Park and Recreation Department performed inspections of its facilities, including those that it shared with other entities (such as schools). Refer to the completed *Municipal Inspection Forms* for Park and Recreation Department facilities in Appendix B.

For more information on the BMPs implemented at City parks and recreational facilities, refer to the Park and Recreation Department's FY 2007 *Annual Reporting Form* in Appendix B.

3.3.1.13 Police Facilities

The City's Police Department maintains 14 facilities. These facilities consist of a police headquarters, police stations and garages, a horse stable, a pistol range, and a canine facility. A summary of the practices implemented by the Police Department in FY 2007 at their facilities and when performing activities is provided below:

- Operational BMPs were implemented for the Police Mounted Unit to provide for the clean up of their horse manure on City streets and other public places.
- At the Police Headquarters building, the landscape irrigation was reduced to avoid excess runoff. Tailgate meetings were held twice a week to update staff on the BMPs being implemented for the Headquarters building.
- Informational meetings were held with staff sergeants and other personnel to assure that BMPs were understood and being implemented.
- The Police Department conducted scheduled cleanings of parking lots, inspections of rooftop drains and gutters, twice-weekly trash pickups, and cleaning of storm drain inlets.
- The Police Department spent \$9,430 in FY 2007 to clean and remove trash from the Chollas Creek drainage culvert. They removed approximately 8.5 tons of material from the culvert.
- Lids were provided for all dumpsters and were kept closed at all times.
- Leaking dumpsters were replaced, as needed.

- Irrigation systems were maintained and adjusted, as needed, to prevent excess runoff.
- Facilities, including storage areas, storm drain inlets, and roof drains, were inspected regularly to prevent contamination of waterways.
- Trash and litter abatement procedures were implemented at all facilities, including parking lots.
- The Police Department implemented BMPs for the Air Support Unit located at Montgomery Field. Personnel assigned to that unit received training on these BMPs.
- Spill kits were provided for prompt cleanup of leaking vehicles or accidental spills.
- Hazardous materials were properly contained according to current regulations.
- BMPs were used to protect storm drain inlets near fueling stations and at the horse facility.
- Roll-off bins were properly covered, when necessary, to prevent storm water contact.
- Modified drainage at the pistol range and stables prevented contaminated runoff from entering the MS4.
- Procedures for washing vehicles and horse trailers were implemented. Horses and dogs were only washed in designated areas. Horse manure and dog feces were collected and properly disposed of.

For more information on BMPs implemented at Police facilities, refer to the Police Department's FY 2007 *Annual Reporting Form* provided in Appendix B.

3.3.1.14 *Fire Department Facilities*

The City's Fire-Rescue Department maintains 47 facilities and has developed and implemented a SWPPP for operations at each. A summary of the BMPs implemented by the Fire-Rescue Department in FY 2007 is provided below:

In newer fire stations, all equipment was washed in designated areas. Spill kits and drip pans were provided and used at all applicable facilities. Parking lots and other outdoor areas were routinely cleaned using dry sweeping methods. Apparatus floors and parking areas were routinely dry swept and crews trained to dispose of water into landscaped areas. The irrigation system was adjusted to reduce excess runoff. BMP information was posted at all fire station bulletin boards.

For more information on BMPs implemented at Fire-Rescue Department facilities, refer to the Fire-Rescue Department's FY 2007 *Annual Reporting Form* and completed *Municipal Inspection Forms* provided in Appendix B.

3.3.1.15 *City-Owned Leased Property*

The Real Estate Assets Department (READ) is responsible for overseeing City-owned leased property, including commercial, industrial, and residential land uses. In addition to training staff in general storm water requirements, READ implemented additional BMPs in FY 2007. The following is a summary of these BMPs:

- 60 city-owned leased and non-leased properties were inspected in FY 2007. Appropriate storm water pollution prevention fact sheets were distributed at the time of inspection. A copy of each completed checklist is maintained in READ's

records retention files. Of the 60 properties, five of them were City-owned non-leased properties, and the completed checklist for each of these properties is included in Appendix B.

- Standard lease language requiring Water Quality Management Plan compliance and preparation was incorporated into all new/renewal leases. During the reporting period, there were a total of 37 new or amended leases that included the storm water language.

In prior fiscal years, all City property was included in municipal facilities. However, after a thorough analysis it was determined that due to the transfer of property rights through legal agreements, leased properties are not municipal facilities since they are not operated by City staff. In FY 2008, commercial and industrial activities on these sites will be subject to the same requirements as other businesses that are located within City limits. Residential leases will be considered residential land uses.

For more information on BMPs implemented by the READ, refer to READ's FY 2007 *Annual Reporting Form* and completed *Municipal Inspection Forms* provided in Appendix B.

3.3.2 Training of Municipal Employees

City staff received training in general storm water issues and requirements. Employees also received training aimed at reducing or eliminating the discharge of pollutants from specific activities (activity-specific training). A summary of these trainings are provided in Section 12, *Education*.

3.4 MANAGEMENT OF PESTICIDES, HERBICIDES, AND FERTILIZERS

In FY 2007, the City took measures to reduce the contribution of pollutants associated with the application, storage, and disposal of pesticides, herbicides, and fertilizers from municipal areas and activities to the City's MS4. The Park and Recreation Department implemented BMPs included in its *Master Set of Best Management Practices Manual* developed as a storm water pollution prevention reference guide for employees. BMPs were implemented in priority areas, such as parks, landscaped areas, and municipal yards.

3.5 MUNICIPAL FACILITY INSPECTIONS

The City requires applicable City departments to inspect all high priority municipal facilities annually at a minimum. All municipal facilities were inspected in FY 2007. In many cases during the reporting period, municipal facilities were inspected more frequently, either formally (i.e., filling out a *Storm Water Municipal Inspection Form*) or informally (i.e., visual observations and walk-throughs). A copy of the *Storm Water Municipal Inspection Form* is provided at the end of this section.

The City took measures to ensure that all municipal facilities were in compliance with the requirements of the Municipal Permit and the City's JURMP. During the reporting period, if any issues were identified during facility inspections, the storm water representative responsible for inspections was trained to work with appropriate personnel to ensure that issues were addressed and ultimately resolved. These issues were reported to the

Storm Water Division and were documented using the *Storm Water Municipal Inspection Form*.

3.6 ENFORCEMENT AND COMPLIANCE

3.6.1 Hotline Complaint Investigations

The Storm Water Division manages the Storm Water Pollution Prevention Hotline (619) 235-1000 and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm drain system from locations within the City, including municipal areas.

3.6.2 Enforcement Actions

The Storm Water Division's Investigation and Enforcement Section enforces the City's *Storm Water Management and Discharge Control Ordinance* (§43.03 of the Municipal Code) Citywide, including municipal facilities and activities. The Storm Water Division took measures to ensure that all municipal facilities were in compliance with the requirements of the Municipal Permit and the City's municipal code and Urban Runoff Management Plan. As described above, issues identified during municipal inspections are reported to the Storm Water Pollution Prevention Division and are documented on the municipal inspection forms.

In FY 2007, Storm Water Division Code Compliance Officers conducted approximately 53 investigations of potential discharges at municipal facilities or activities. Code Compliance Officers issued 16 notices of violation and 4 citations. The remainder of the investigations resulted in the Code Compliance Officer determining that a storm water violation had not occurred, the discharge was not caused by the municipal activity/department/division, education was conducted, or a referral was made. See Appendix F for information about enforcement actions taken at municipal sites.

3.7 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Municipal Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

Figure 3-3 Municipal Inspection Form.

City of San Diego - Urban Runoff Management Plan
ANNUAL MUNICIPAL FACILITY SITE COMPLIANCE INSPECTION CHECKLIST
Page 1 of 2

Inspector: _____
Phone Number: _____
Date/Time: _____

I. Facility Information

Facility Name		
Street Address		Zip Code
Facility Contact Person		Phone
Standard Industrial Classification Code	Waste Discharge Identification Number	APN No.

II. Shared Facility Information
Is there more than one City department and/or division sharing this facility?
_____ No (skip this section) _____ Yes (complete this section)

Name of City Departments and/or Divisions Sharing Facility	Contact Person and Phone Number	Covered by this Inspection?

III. General Site Conditions and Runoff Management Practices Review

		S*	U*	N/A	Comments
General	Employees trained in storm water pollution prevention practices?				
	Common areas of yard reasonably clean and free of litter and debris?				
	Are parking areas generally clean and swept as needed?				
	Are storm drain inlets reasonably clean and free of debris?				
	Is there evidence of discharges, spills, and or leaks in any areas?				
Trash storage areas	Is area reasonably clean and uncluttered?				
	Are trash cans and garbage bins kept covered?				
Fueling areas	Is there a roof on fueling area?				
	Is there a mechanism in place for spill overflow protection?				
Vehicle/equipment maintenance area	Area reasonably clean and free of spills, leaks, or any other deleterious materials?				
	Is area covered overhead?				
	Dry clean up methods implemented?				
	Are there drip pans readily available for use?				
	Spill containment and cleanup kits readily available?				
	Storage areas covered and properly maintained?				

* S = Satisfactory, U = Unsatisfactory

Figure 3-3 Continued.

Page 2 of 2

III. General Site Conditions and Runoff Management Practices Review (Cont.)

		S	U	N/A	Comments
Vehicle/equipment washing areas (cont)	Are related activities contained within designated area?				
	Hazardous materials/liquids stored above ground?				
	Are there containment mechanisms in place?				
Materials loading and storage areas	Area reasonably clean and free of litter and debris?				
	Designated area covered overhead?				
Chemical handling areas	Areas reasonably clean and organized?				
	Is area indoors or properly covered?				
	Spill containment cleanup kits readily available?				
	If outdoors, is water from surrounding areas prevented from reaching chemical handling areas?				
	Hazardous materials/liquids stored above ground?				
	Dry clean up methods implemented?				

IV. Water Quality Management Plan (WQMP) Review**

Has a WQMP (or SWPPP) been developed for this yard? _____ Yes (complete this section and skip section V)
 _____ No (skip this section and complete section V)

		S	U	N/A	Comments
Facility site map	Identifies drainage areas and direction of flow				
	Identifies location of storm water conveyance system including ditches, inlets and storm drains				
	Identifies location of any existing storm water controls (e.g., berms, filters, grass swales, etc.)				
	Identifies location of building(s) and activity areas (e.g., fueling islands, hazardous materials storage areas, washing areas, etc.)				
Materials/activities used on site	List materials stored and handled on site, including storage location and typical quantities				
	Includes a narrative description of activities conducted on site which have the potential to result in discharges to storm drain system				
Potential Pollutants	Identifies potential pollutants which could be discharged from site given activities conducted at facility				
Best Management Practices (BMPs)	Describes BMPs implemented at facility to deal with each potential pollutant source identified				
	Minimum City wide BMPs listed				
	Storm water system regularly inspected/monitored				
Record keeping	Employee training records				
	Quarterly inspections records, if any				
	Storm water conveyance system monitoring (2/yr) ¹				

**The term Water Quality Management Plan (WQMP) is replacing the term Storm Water Pollution Prevention Plan (or SWPPP) for municipal facilities.

V. Water Quality Management Plan Status

Is facility in the process of developing a WQMP?

_____ Yes, expected completion date: _____

_____ No, this facility does not need a WQMP because _____

VI. Additional Comments (attach additional pages if necessary)

¹ Only required for NDPES General Storm Water Permit holders

4 INDUSTRIAL

The City continued to implement its Industrial Program during FY 2007. The City hired an environmental consultant/contractor qualified in conducting industrial inspections during FY 2007 to assist with implementation of the industrial inspection program, to conduct inspections of industrial facilities, and to maintain an industrial inspection database. In addition, the City uses other City programs to conduct additional inspections of industrial facilities. The FY 2007 accomplishments of these program elements are further described below.

4.1 PRIORITY SOURCES

The City tasked its environmental consultant to review all available records in order to update the inventory of industrial businesses. To do this, the City's consultant evaluated over 81,000 business licenses and the City's Real Estates Asset Department (READ) list of leased properties. The City's watershed based prioritized inventory is included in Appendix C-1, which includes the name and address, watershed, a description of the activities, NAICS code, SIC code, and priority taking into account pollutants generated and proximity to environmentally sensitive areas.

The City's consultant, using the process illustrated in the flow chart in Figure 4-1, determined the priority ranking of evaluated businesses. This prioritization flow chart shows the six water quality threat factors considered when assigning priority, including whether or not the facility generates pollutants which contribute to downstream impairments or are directly adjacent to or discharge directly to environmentally sensitive areas. If the water quality threat for a facility is "yes" from any of the first five factors, the facility is ranked as high priority. A "yes" to the sixth water quality factor ranked the facility as medium priority. Facilities that receive "no" for all six factors were ranked as low priority.

The first priority for the FY 2007 inspection program was known high priority industrial sites or those very likely to be high priority industrial. *As requested in comment 2 of the RWQCB comments on the City of San Diego 2005-2006 Annual Report letter (Appendix A), during FY 2007 the City inspected all high priority industrial facilities that had not been inspected or found not to be in compliance in FY 2006.* The group of high priority industrial facilities included:

- High priority industrial businesses found to not be in compliance when inspected in FY 2006.
- *High priority industrial businesses that were not inspected in FY 2006 because they were in compliance during the FY 2005 inspections (comment 4 of the RWQCB comment letter – Appendix A).*
- Businesses that had not previously been inspected but were identified as high priority industrial during inventory preparation.

Note: High priority industrial facilities inspected during FY 2006 that were in compliance were not selected for inspection in FY 2007.

After accounting for known high priority industrial sites, the City's consultant used several methods to seek out potential high priority industrial sites. Potential industrial businesses thought to generate the pollutant of concern for the water body were investigated if located less than 200 feet from a 303(d) listed water body or any of the 303(d) listed water body's tributaries

known to have flowing water. Because the NAICS codes on the City's business license list are not always accurate, experience has shown that selecting potential high priority industrial businesses solely on the basis of such codes ends up leading to few sites with significant pollutant discharge potential. Based on land use data from the San Diego Association of Governments (SANDAG) and past inspection experience, the City identified several areas of the City thought to contain higher concentrations of businesses that may pose greater threat to water quality. Several of the areas include aggregate operations and auto recycling facilities that the City has inspected in the past. Those areas had been thoroughly evaluated by the City in previous years, and inspections were conducted there again in 2FY 2007. The remaining three high priority areas of the City—the general areas along Dalbergia Street, Commercial Street, and National Avenue—were selected for the City's consultant to inspect the 634 parcels in those areas.

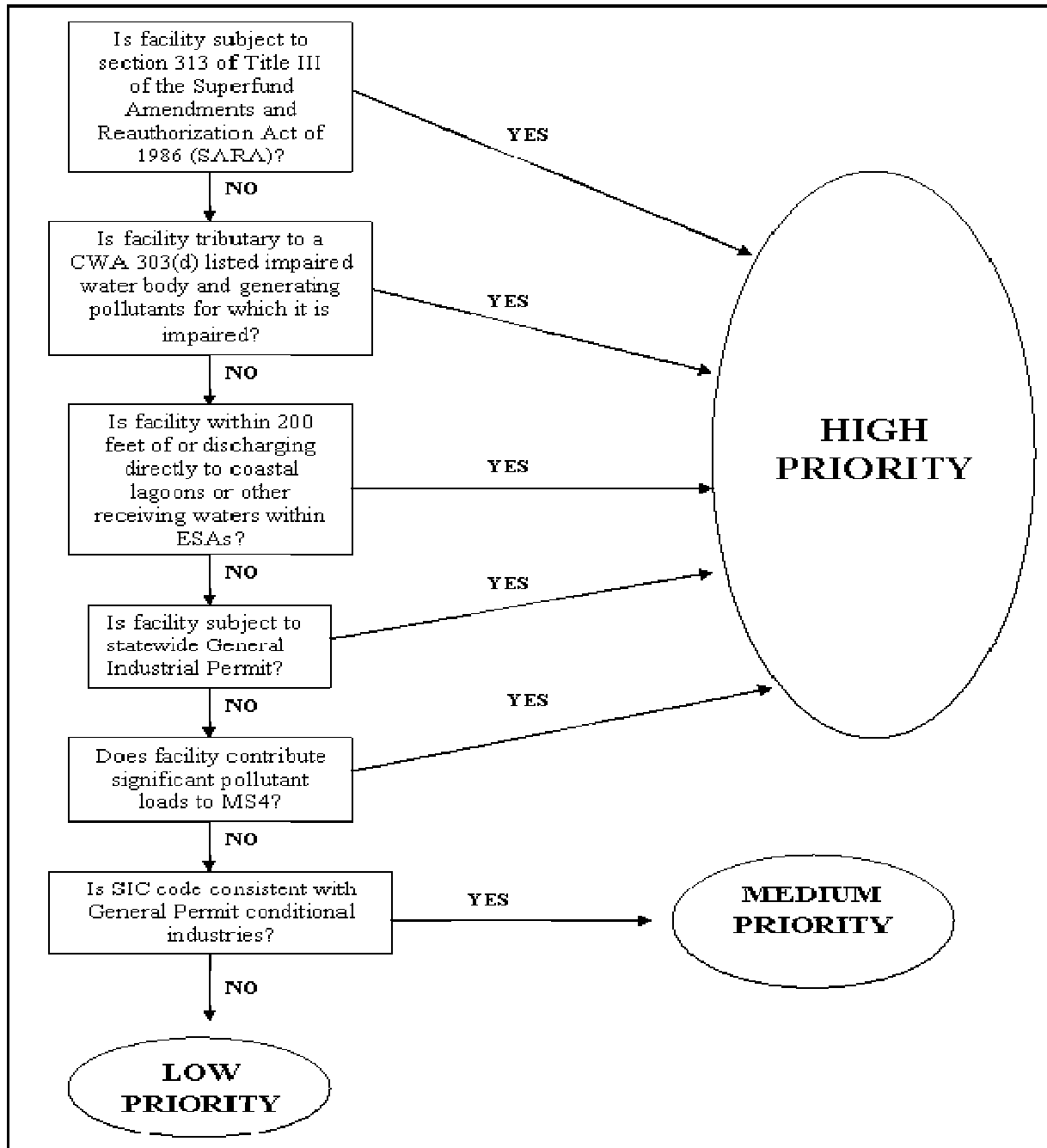


Figure 4-1. Industrial Facilities Water Quality Threat Prioritization Flow Chart.

4.2 BMP REQUIREMENTS

Minimum BMPs required for industrial facilities within the City are identified in Section 2.5, *Industrial and Commercial Uses*, of the City's JURMP. Industrial Facilities must also comply with the requirements set forth in the City's Storm Water Ordinance. The City also uses the California Storm Water Quality Association (CASQA) Industrial Handbook as a guidance document for industries implementing the required BMPs.

4.3 BMP IMPLEMENTATION

To ensure facility compliance of these required BMPs and other storm water regulations, the City conducts inspections and investigations of facilities and takes enforcement actions where appropriate. An important element of the Industrial Program is conducting education and outreach efforts to the staff at the businesses. These program components are further described below.

4.3.1 Education and Outreach

The City has an ongoing education and outreach element included in its industrial program. Industrial inspectors distributed fact sheets and educational information during inspections as appropriate. These materials are described and highlighted in the following sections.

Fact Sheets and Other Educational Handouts

Fact sheets and other educational handouts with information specific to industrial facilities and activities were distributed during inspections conducted during FY 2007. Fact sheets and handouts with topics applicable to both industrial and commercial activities include:

- Information for filing the proper Industrial Permit paperwork
- Industrial Facilities/Permit Compliance
- Impervious Surfaces BMPs (bilingual)
- Dumpsters & Loading Dock Areas BMPs (bilingual)
- Spill Response (bilingual)
- Automotive Fluids BMPs (bilingual)
- Bound and laminated mobile business cards BMPs
- Laminated storm water information cards (bilingual)
- Three C's Handout: Control, Contain, and Capture

In FY 2007, these fact sheets were provided to industries during inspections, investigations, via the *Think Blue* website (if applicable), or whenever requested.

Business License Storm Water Compliance Flyer

The City's Business License Storm Water Compliance Flyer summarizes the relevant storm water regulations in the City's Municipal Code, highlights business activities that reduce storm water pollution, and provides telephone, email, and website addresses should businesses need additional information. These flyers were mailed to businesses during the Office of the City Treasurer's annual renewal process. Approximately 76,000 notices were sent in FY 2007.

Think Blue Website

In FY 2007, the *Think Blue* website continued to provide information for industrial facilities within the City about storm water regulations and facility and activity requirements. The website posted the fact sheets created for industrial facilities as well as the City's JURMP, which outlines required BMPs for industrial sites. The website also provided resources and links for industries on BMPs.

Industrial Facility Leases

In FY 2007 Real Estate Assets Department (READ) added storm water requirements for City-owned leased property, including industrial sites, to amended, new, and renewing leases. This language educates leaseholders that they must take measures to reduce the discharge of

pollutants in runoff and advises that they will be accountable if storm water requirements are not met.

4.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that facilities are complying with industrial storm water regulations. These include routine inspections, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

4.4.1 Industrial Facility Inspections

The routine and follow-up site inspection procedure involved a thorough examination of the facility and all outdoor activities with the potential to generate urban runoff pollution. A standard five-page inspection form was completed at each site to document the visit. Whenever a business was found to have moved or was a duplicate listing, an inspection form was completed to document the site visit findings. *In response to comment 3 of the RWQCB comments on the City of San Diego 2005-2006 Annual Report letter (Appendix A), the City confirms that in the case of facilities where the listed business had moved and was replaced, routine site inspections were conducted at the replacement business if it was suspected to be high priority or if non-compliance was noted at the site.*

Based on the prioritization process, 255 industrial facilities received full industrial inspections. An additional 24 site visits were conducted, mainly at sites that were found to no longer be in business. Twenty-two sites were found to not need inspection via phone calls to the businesses. Many of these sites reported moving out of the City of San Diego, and this was often confirmed via checking the business' websites. Site visits for the significant contributors in high priority areas are included in the above numbers. These inspections located a number of high threat to water quality sites that did not have business licenses, and therefore would not have been inspected if the City relied on the business license list. An additional 501 parcels in the high priority areas were evaluated to determine if any industrial or commercial businesses needed to be added to the City's inventories. However, none were added.

A complete inventory of inspections is included as Appendix C-2. The inspection inventory shows the City's high priority industrial inventory and includes the prioritization, watershed, and inspection status for each facility. During FY 2007 Metropolitan Waste Water Division (MWWD) Industrial Wastewater Control Program staff performed 48 storm water inspections and a list of those facilities are included as Appendix C-3. A list of those facilities that were identified but not inspected, including justifications, is included as Appendix C-4. The City certifies that the industrial facilities listed in Appendix C-5 meet all the requirements of Order No. 2001-01, Section F.3.b.(6).(b).ii.

4.4.2 Complaint Investigations

The Storm Water Division operates the Storm Water Pollution Prevention Hotline (619-235-1000) and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including industrial facilities. A total of 2,157 contacts were logged by staff and 1,964 investigations were carried out by Code Compliance staff (remaining contacts were requests for information). Of these, approximately 67 investigations were conducted at industrial sites in FY 2007. The remaining investigations are discussed in other sections of this annual report.

4.4.3 Reporting of Non-Compliant Sites

All inspections performed at industrial facilities, including inspection information and findings, are reported to the Regional Board. American Recycling on Home Ave. was not inspected this term due to the fact that they would not permit an inspection. An inspection warrant could not be provided before the end of the inspection term. This facility was reported to the Regional Board as not cooperating with the City and potentially requiring a State General Industrial permit. The City is working on making the warrant process faster in order to avoid this type of situation in the future. A complete list of facilities reported to the Regional Board for violation of the State Industrial Permit is included as Appendix C-6.

4.4.4 Enforcement Actions

The City's process for inspection of industrial facilities ensures that appropriate enforcement actions are taken on facilities with violations of the City's storm water ordinances. During this reporting period, the City code enforcement officers investigated 67 industrial sites. As a result of the site investigations, there were 19 citations, 17 Notices of Violations, and 1 referral issued to the industrial facilities. There were also 22 sites where the City found no evidence of a violation or no enforcement actions were necessary. Education was the main enforcement action conducted for the remaining 8 sites due to the non-discharge nature of the violations noted. Appendix C-7 and Table 4-1 provide a summary of the enforcement actions (primarily educational) taken.

In response to comment 5 of the Regional Water Quality Control Board's Comments on the City of San Diego 2005-2006 Annual Report letter (Appendix A), the City conducts education as an initial enforcement technique at non-compliant industrial sites where the procedural violation (i.e., the facility is not complying with a BMP requirement, but a discharge has not occurred) does not warrant a citation, civil penalty or Notice of Violation (NOV). The City distributes educational materials or instructions to prevent potential discharges from occurring. This type of education is conducted at sites when the City believes educational instruction will be an effective method of achieving compliance through proper BMP implementation. If the City determines that education may not be the most effective mechanism for achieving compliance at the industrial site, then both the environmental and compliance significance are evaluated as part of the escalating enforcement process.

The City utilizes a database that evaluates the following parameters.

Environmental Significance (Category of Discharge):

- *Was the discharge intentional?*
- *Is it a regulated Industry?*
- *Did it discharge into a 303(d) Water body?*
- *If there is sediment, is the site over 25%?*
- *Was the discharge a large extent or volume?*
- *If needed and requested, was it cleaned up?*
- *Was it a damaged conveyance?*
- *Did the discharge reach an inlet or receiving waters via a conveyance system?*
- *Was there habitat degradation?*
- *Was wildlife impacted?*
- *Is there algal bloom discoloration or odor?*

Compliance Significance:

- *Prior penalty upheld with last 3 years?*
- *Prior penalty upheld within last 6 months?*
- *Prior violations or warnings?*
- *Education material previously provided?*
- *Prior knowledge of need for BMP?*
- *Discharge due to BMP failure?*

Repeat procedural violations are also assessed using the above database. If education has not achieved compliance, then an administrative citation, Notice of Violation, or Civil Penalty may be issued. An administrative citation may be issued as the initial enforcement step or may follow the issuance of a Notice of Violation based upon the evaluation using the factors listed above.

The maximum penalties for each administrative citation are prescribed in the Municipal Code and are not based on the type of discharge or its quantitative amount. Therefore, the first citation is always \$100, the second is always \$250, and the third is always \$500. Administrative citations may be used in the case of repeat violations, i.e., a repeat of a violation which has previously been corrected. If such a repeat violation occurs within one year, the next highest fine amount may be imposed or if the case previously went to the third level, the highest fine amount may be repeated. A Civil Penalty may also be imposed and the City utilizes the database noted above to determine the degree of the Civil Penalty that shall be issued to the responsible party.

Several of the industrial sites that were inspected were found to be operating facilities that were currently eligible for exemption from the Industrial Permit based on no exposure. Where needed, NONA/NEC exemption paperwork was distributed, and assistance was provided in completing the forms. The facility representatives were reminded that in order to stay in compliance with Industrial Permit requirements and to avoid negating the conditions of NONA/NEC exemption, the businesses must periodically reassess their site's conditions to ensure that they maintain no exposure. The businesses were also informed that at some time in the future, pending the issuance of a new Industrial Permit, exemption requirements and procedures could change. During the inspection process, there were violations noted that were concerned with improper or inadequate BMP installation and maintenance. Due to the non-discharge nature of the violations noted during the inspection, education was the main enforcement action conducted. Table 4-1 provides a summary of the education materials distributed.

Table 4-1. Educational Materials Distributed in FY 2007.

Educational Material	# Distributed
NONA/NEC info and forms	40
NOI info	32
3 C's Handout	2
Think Blue Handout: Industrial Facilities	5
Think Blue Handout: Industrial Facilities (Spanish)	1
Think Blue Handout: Spills	17

Educational Material	# Distributed
Think Blue Handout: Spills (Spanish)	5
Think Blue Handout: Impervious Surfaces	34
Think Blue Handout: Impervious Surfaces (Spanish)	7
Think Blue Handout: Automotive Fluids	23
Think Blue Handout: Automotive Fluids (Spanish)	20
Think Blue Handout: Dumpsters & Loading Docks	13
Think Blue Handout: Dumpsters & Loading Docks (Spanish)	4
Mobile Business Cards	7
Think Blue Bilingual Informational Card	22
Total	232

In FY 2007 the industrial inspections identified a number of businesses that did not conduct the required monitoring. All businesses that did not conduct monitoring that is required by their state industrial permit were referred to the RWQCB for enforcement (Appendix C-7). There is one business that is high priority but not subject to the State Industrial Permit. This business was sent a letter informing them of the requirement to conduct monitoring and monitoring results needed to be sent to the City. However, the timing between sending the notice of required monitoring and their annual inspection was such that there were no rain events that could be monitored. The City will continue to work with this business to ensure it complies with all monitoring requirements. If the City determines that the business is still in violation of the monitoring requirement, then the City will take enforcement action.

4.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Industrial Program combined with the Commercial Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008. When reissued by the San Diego Regional Water Quality Control Board, the City will review the newly updated Industrial Storm Water General Permit for changes in industrial facilities' BMP requirements.

5 COMMERCIAL

The City continued to implement the Commercial Component of its Urban Runoff Management Plan (URMP) to reduce pollutants from commercial activities. Highlights of the Commercial Program include development and dissemination of educational materials for businesses, participation in outreach events, storm water inspection of commercial facilities, and enforcement actions on non-compliant sites. These program components are described below.

5.1 PRIORITY SOURCES

As part of the process of updating the industrial inventory, the City's environmental consultant described in section 4 also updated the commercial business inventory. Records reviewed included the over 81,000 businesses in the City's business license inventory and the City's complete Food Establishment Waste Discharge (FEWD) inventory. New commercial businesses categories that were added to the new Municipal Permit (Order No. 2007-0001) were included in the inventory. However, commercial businesses were prioritized according to the procedure in the 2001 Municipal Permit. That is, all businesses within commercial categories listed in the Municipal Permit were listed as high priority commercial, regardless of observed or perceived threat to water quality. The City's inventory of facilities is included in Appendix D-1.

5.2 BMP REQUIREMENTS

Minimum BMPs required for industrial and commercial facilities within the City are identified in Section 2.5, *Industrial and Commercial Uses*, of the City's URMP. Commercial businesses must also comply with the prohibitions and requirements set forth in the City's Storm Water Ordinance. The City also uses the California Storm Water Quality Association (CASQA) Commercial Handbook as a guidance document for businesses currently implementing required BMPs and those businesses that began implementing BMPs due to enforcement actions.

5.3 COMMERCIAL BMP IMPLEMENTATION

To ensure facility compliance of the required BMPs and other storm water regulations, the City conducts education and outreach efforts, performs inspections and investigations of facilities, and takes enforcement actions where appropriate. These program components are further described below.

5.3.1 Education and Outreach

The City conducts important education and outreach efforts for commercial activities. These efforts are an essential component to ensuring compliance and understanding of applicable storm water requirements.

5.3.1.1 Business License Storm Water Compliance Flyer

The City's Business License Storm Water Compliance Flyer summarizes the relevant storm water regulations in the City's Municipal Code, highlights business activities that reduce storm water pollution, and provides telephone, email, and website addresses should businesses need additional information. These flyers were mailed to businesses during the Office of the City Treasurer's annual renewal process. Approximately 76,000 notices were sent in FY 2007.

5.3.1.2 *Fact Sheets*

The Storm Water Division created and distributed fact sheets to educate businesses on topics related to storm water. Storm water public education and outreach staff created fact sheets specific to a variety of commercial activities that were distributed by Storm Water Division staff and other city employees during the reporting period. Table 5-1 is a summary of the fact sheets that were distributed in FY 2007. About 154 materials were distributed during inspections in FY 2007.

Table 5-1. Educational Materials Distributed in FY 2007.

Fact Sheet	Number Distributed
3 C's Handout	2
Think Blue Handout: Spills	17
Think Blue Handout: Spills (Spanish)	5
Think Blue Handout: Impervious Surfaces	34
Think Blue Handout: Impervious Surfaces (Spanish)	7
Think Blue Handout: Automotive Fluids	23
Think Blue Handout: Automotive Fluids (Spanish)	20
Think Blue Handout: Dumpsters and Loading Docks	13
Think Blue Handout: Dumpsters and Loading Docks (Spanish)	4
Mobile Business Cards	7
Think Blue Bilingual Informational Card	22
Total	154

These fact sheets were provided to businesses during inspections or investigations and were available on the *Think Blue* website (<http://www.ThinkBlueSD.org>).

5.3.1.3 *Think Blue Website*

In FY 2007, the *Think Blue* website continued to provide information about storm water regulations and requirements associated with commercial activities. The City's URMP outlines required minimum BMPs, and the *Think Blue* website posted fact sheets created to assist citizens and businesses understand proper BMPs for specific activities. The website also provided resources and links for commercial activities.

5.3.1.4 *Other Educational Materials*

The City developed a series of mobile business informational cards for businesses to reference when working in the field. The cards provide storm water information, such as pertinent regulations and suggested BMPs to comply with storm water requirements for specific businesses. In FY 2007, 2,198 materials targeting pressure wash operators and impervious surface cleaning were distributed.

5.3.1.5 *Grease Disposal Program*

In FY 2007, the Metropolitan Wastewater Department continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease. The Food Establishment Waste

Discharge (FEWD) Program regulates restaurants' sewer grease traps to ensure proper function and also reviews disposal procedures for oil and cooking grease. During the reporting period, information was provided to restaurants through the Metropolitan Wastewater Department's website, educational brochures, and a web-based video. The FEWD Program also makes referrals to the Storm Water Division regarding the restaurants that it inspects when necessary. During FY 2007, FEWD staff performed 4,809 storm water inspections.

5.4 COMPLIANCE AND ENFORCEMENT

The City takes measures to ensure that facilities are complying with storm water regulations associated with commercial activities. These include inspections, hotline complaint investigations, and enforcement actions, where necessary.

5.4.1 Commercial Facility Inspections

In addition to the City's FEWD inspections, the City's consultant was also tasked with inspections of targeted commercial facilities. That commercial inspection program primarily focused on automotive and equipment repair facilities in the Chollas Creek, Seventh Street Channel (La Paleta Creek), and Switzer Creek watersheds. A total of 255 full BMP assessments were conducted as part of this program, and another 69 sites were visited. Those 69 other site visits mostly comprised of visits to businesses found to have moved or gone out of business. A table is provided in Appendix D-2 that lists the commercial facilities inspected in FY 2007.

During the inspection program, 60 commercial businesses were found to be in violation of the City's municipal storm water ordinance. A list of these businesses is presented in Appendix D-3.

5.4.2 Complaint Investigations

The Storm Water Division operates the Storm Water Pollution Prevention Hotline (619-235-1000) and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including commercial facilities. A total of 2,157 contacts were logged by staff and 1,964 investigations were carried out by Code Compliance staff (the remaining contacts were requests for information). Of these, approximately 765 investigations were conducted at commercial/restaurant sites in FY 2007.

During FY 2007 the City's Storm Water Division also conducted a Pilot Power Washing Enforcement Project. The City had received complaints regarding several power washing companies washing sidewalks and not capturing the waste water associated with the cleaning. It was also reported that a lot of the washing was being conducted outside of normal business hours (early morning, weekends, evening, etc.) Beginning in May 2007 and commencing in August 2007, the City's Storm Water Division Enforcement staff conducted visual inspections in areas of the City during the weekday and weekend early morning hours (Table 5-2). The results of the City's pilot project showed that the majority of the discharges were not caused by the power washing companies, and many of the power washing companies took steps to make the appropriate corrections to their cleaning methods. Overall there were 33 citations and 3 Notices of Violations issued during the pilot project.

Table 5-2. Pilot Power Washing Project Schedule.

Date	Time	Area
May 5, 2007	0400 - 0800	Downtown, Gaslamp, and East Village
May 9, 2007	0400 - 0800	Ocean Beach, Pacific Beach, and La Jolla
May 17, 2007	0400 - 0800	University Avenue, El Cajon Boulevard, and San Ysidro
May 26, 2007	0600 - 1000	Rancho Bernardo
May 30, 2007	0400 - 0800	Downtown, Gaslamp, and East Village
June 7, 2007	0400 - 0800	Ocean Beach, Pacific Beach, and La Jolla
June 16, 2007	0600 - 1000	University Avenue, El Cajon Boulevard, and San Ysidro
June 19, 2007	0400 - 0800	Rancho Bernardo
June 28, 2007	0400 - 0800	Downtown, Gaslamp, and East Village
July 5, 2007	0400 - 0800	Downtown, Gaslamp, and East Village, Ocean Beach, Pacific Beach, and La Jolla
July 7, 2007	0600 - 1000	Ocean Beach, Pacific Beach, and La Jolla
July 10, 2007	0400 - 0800	University Avenue, El Cajon Boulevard, and San Ysidro
July 18, 2007	0400 - 0800	Rancho Bernardo
July 28, 2007	0400 - 0800	Downtown, Gaslamp, and East Village
July 31, 2007	0600 - 1000	Ocean Beach, Pacific Beach, and La Jolla
August 8, 2007	0400 - 0800	University Avenue, El Cajon Boulevard, and San Ysidro
August 16, 2007	0400 - 0800	Rancho Bernardo
August 25, 2007	0600 - 1000	Downtown, Gaslamp, and East Village

5.4.3 Reporting of Non-Compliant Sites

The FEWD Program makes referrals to the Storm Water Program regarding the restaurants that it inspects when an active discharge is involved. Code Compliance Officers are assigned to the cases to conduct investigations and implement the proper enforcement actions. In FY 2007, the Storm Water Division received and investigated 36 reports from the FEWD Program, as described below.

5.4.4 Enforcement Actions

The City's process for inspection and enforcement of violations ensures that commercial facility violations are abated. Sites with storm water violations noted during inspections are referred to the Storm Water Division's Investigations and Enforcements Section for follow-up investigation and enforcement. Refer to Appendix F for a table of enforcement actions taken in FY 2007.

Specifically, of the 36 reports from the FEWD Program in FY 2007, eight resulted in the issuance of a notice of violation, thirteen citations, and one educational enforcement action.

5.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Commercial Program combined with the Industrial Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

6 RESIDENTIAL

The City continued to implement the Residential Component of its Jurisdictional Urban Runoff Management Plan (JURMP) to prevent and reduce pollutants in runoff from residential areas within the City. Highlights of the City's Residential Component during FY 2007 include distribution of numerous education and outreach materials, development of various residential programs, events to educate residents and reduce pollutants, and enforcement of storm water violations from residential activities. These program elements are further described below.

6.1 PRIORITY SOURCES

All residential areas in the City of San Diego have been identified as high priority. There have been no updates to the designated priority.

6.2 BMP REQUIREMENTS

Minimum BMPs for residential areas are identified in Section 2.6, *Residential Uses*, of the City's JURMP. Residential activities must also be carried out in compliance with the requirements set forth in the City's Storm Water Ordinance.

6.3 RESIDENTIAL BMP IMPLEMENTATION

To ensure facility compliance with these required BMPs and other storm water regulations, the City conducts education and outreach efforts, implements various collection programs, performs inspections and investigations, and takes enforcement actions where appropriate. These program components are further described below.

6.3.1 Education and Outreach

The City implemented a substantial education and outreach campaign directed at residential activities. Education and outreach efforts specific to residential activities are summarized below. For a detailed description of the City's Education Component, refer to Section 12, *Education*. Education and outreach efforts conducted for residents as part of the Household Hazardous Waste Program is described in below in Section 6.3.2, *Household Hazardous Waste Program*.

6.3.1.1 Public Service Announcements

In FY 2007, the Storm Water Division continued to implement the *Think Blue* media campaign to educate citizens on storm water issues and pollution prevention measures. The campaign was broadcast on local radio and television stations to reach English- and Spanish-speaking communities. A detailed discussion of the *Think Blue* media campaign is provided in Section 12.1.4, *Think Blue Campaign – FY 2007*.

6.3.1.2 Think Blue Website

In FY 2007, the *Think Blue* website (<http://www.ThinkBlueSD.org>) continued to provide information, storm water regulations, and requirements associated with residential activities. The website made available fact sheets created for these activities as well as the City's JURMP, which outlines required minimum BMPs. The website also provided a page for residents to locate tips for preventing or reducing pollutants from different areas of the home. The site also continued to feature the Chollas Creek Environmental Improvement and Awareness Programs,

which provided information on the City's efforts to restore Chollas Creek and improve its water quality. The website is estimated to have received approximately 52,678 hits in FY 2007.

6.3.1.3 *Fact Sheets and Brochures*

The Storm Water Division distributed educational fact sheets and brochures to educate residents and businesses on topics related to storm water. Fact sheets and brochures, specific to a variety of residential activities include:

Table 6-1. Educational Materials Distributed in FY 2007*.

Fact Sheet	Number Distributed (English)	Number Distributed (Spanish)
Think Blue Handout: Spills	17	5
Think Blue Handout: Impervious Surfaces	2,034	157
Think Blue Handout: Automotive Fluids	223	70
Brochure	1,800	165
Car Washing	400	50
Clean Water Leader	1,000	150
Concrete Washout	900	100
Construction Waste	2,000	60
Municipal Code	3,000	100
Regulations	400	50
Spills	800	50
Swimming Pools	300	50
Useful Tips for Ash	100	0
Water Discharge	200	50
Total	13,174	1,057

*Note the City tracks the total number of fact sheets distributed and some fact sheets noted may not have been distributed to only residents. Some may have gone to industrial, commercial, or construction sites.

These fact sheets were provided via the *Think Blue* website, or whenever requested.

6.3.1.4 *Outreach Events*

During the reporting period, the Storm Water Division, with the assistance of City Council office staff and media partners, participated in a number of outreach events, particularly to residents in the Chollas Creek Watershed. Refer to Table 12-2 in Section 12 and the City's WURMP Annual Reports for a listing of the residential outreach events conducted by the City.

6.3.2 *Household Hazardous Waste Program*

The Environmental Services Department (ESD) operates the Household Hazardous Waste (HHW) Program for the City and is responsible for public education and the investigation, maintenance, collection and remediation of hazardous substances including HHW from facilities, residents, vacant land, and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill.

In FY 2007, ESD conducted education and outreach efforts directed at disseminating HHW information to residents. These efforts included numerous outreach events promoted with PSAs and other media advertisements, distributing educational materials, establishment of a hotline (858-694-7000) to answer questions and set up appointments for HHW disposal, and water bill informational inserts. The water bill inserts were distributed in the fall 2006 and spring 2007 to

approximately 270,000 customers for each distribution (approximately 540,000 total customers). Detailed information about these efforts is included in ESD's FY 2007 *Annual Reporting Form* provided in Appendix B.

6.3.3 Grease Disposal Program

In FY 2007, the Metropolitan Wastewater Department (MWWD) continued to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aimed to educate residents and businesses on the proper disposal alternatives for fats, oils, and grease and directed residents to dispose oil and grease at the Miramar Landfill. As part of the education and outreach for this program, MWWD provided information (fact sheet and video) through its departmental website regarding proper grease disposal in both English and Spanish.

6.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that facilities are complying with storm water regulations associated with residential activities. These include patrol of residential areas, hotline complaint investigations, and enforcement actions, where necessary. These elements are described below.

6.4.1 Residential Investigations

Code enforcement officers conduct routine patrols of residential areas and investigate complaints from the storm water hotline (619-235-1000). The Storm Water Division operates the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including residential areas and activities. In FY 2007, a total of 2,157 contacts (not all were residential related) were logged by staff, and 1,964 investigations were carried out by Code Compliance Staff (remaining contacts were requests for information). Approximately 61 investigations pertaining to residential sites were conducted in FY 2007.

6.4.2 Enforcement Actions

Mechanisms that are available to ensure compliance with storm water regulations include distribution of educational materials, issuances of notices of violation, administrative citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the City's Storm Water Ordinance by means of these mechanisms is described in Section 1.3, *Enforcement of Storm Water Ordinance*, in the City's JURMP. Refer to Section 9, *Enforcement*, and Appendix F of this document for information about enforcement actions taken in FY 2007.

6.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Residential Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

7 LAND USE PLANNING FOR NEW DEVELOPMENT

The City continued to implement the Planning and Development Components of the JURMP to reduce the impacts of new development and redevelopment on storm water quality. Highlights of the City's Land Use Planning Component during FY 2007 include continued implementation of the *Storm Water Standards Manual*, implementation of the *Source Water Protection Guidelines for New Development*, and continued integration of storm water protection policies in the City's Community Plans and General Plan.

7.1 LONG-RANGE PLANNING

7.1.1 General Plan

A wide range of policies are proposed in the General Plan to help guide development and provide a conservation "blueprint" so that San Diego's environmental quality and heritage are preserved, maintained, improved and can be sustained for current and future generations. On October 22, 2002, the City Council adopted the Strategic Framework Element as an amendment to the City's 1979 *Progress Guide and General Plan* (1979 General Plan). This action initiated the comprehensive update of the 1979 General Plan. The Strategic Framework Element provided a new strategy for the City's future growth and development, a basis for a new Land Use Element, and a general policy framework for updating the existing elements in the 1979 General Plan. The water quality and watershed principles identified in the JURMP were incorporated into the Strategic Framework Element and associated Five-Year Action Plan and adopted by the City Council into the General Plan.

The Five-Year Action Plan included direction to update the Conservation Element to further address storm water and urban runoff. It also included recommendations to update other policies and regulations to address storm water and urban runoff, including amendments to the Street Design Manual, the Drainage Design Manual, and the Land Development Code. In May 2006, the Planning Department released revised drafts of the General Plan Update, and the Strategic Framework Element was incorporated into the introductory section of the Plan and no longer was a separate element.

General Plan elements under development in FY 2007 relevant to urban runoff include:

Conservation Element. The Conservation Element focuses on conserving natural resources, protecting unique landforms, preserving and managing the open space system, beaches and watercourses, preventing and reducing pollution, and ensuring preservation of our quality of life in San Diego. Many of the policies described in the element are already being implemented throughout the City, via specific programs and plans administered by various City departments, such as the Storm Water Pollution Prevention Program, the Sustainable Communities Program, and the Multiple Species Conservation Program (MSCP). The primary goals related to storm water are for the protection and restoration of water bodies, including reservoirs, coastal waters, creeks, bays, and wetlands, and the preservation of natural attributes of both the floodplain and floodway without endangering life and property. The Conservation Element policies that relate to urban runoff management are included below:

CE-E.1. Continue to develop and implement public education programs.

- a. Involve the public in addressing runoff problems associated with development and raising awareness of how an individual's activities contribute to runoff pollution.
- b. Work with local businesses and developers to provide information and incentives for the implementation of Best Management Practices for pollution prevention and control.
- c. Implement watershed awareness and water quality educational programs for City staff, community planning groups, the general public, and other appropriate groups.

CE-E.2. Apply water quality protection measures to land development projects early in the process-during project design, permitting, construction, and operations-in order to minimize the quantity of runoff generated on-site, the disruption of natural water flows and the contamination of storm water runoff.

- a. Increase on-site infiltration, and preserve, restore or incorporate natural drainage systems into site design.
- b. Direct concentrated drainage flows away from the MHPA and open space areas. If not possible, drainage should be directed into sedimentation basins, grassy swales or mechanical trapping devices prior to draining into the MHPA or open space areas.
- c. Reduce the amount of impervious surfaces through selection of materials, site planning, and street design where possible.
- d. Increase the use of vegetation in drainage design.
- e. Maintain landscape design standards that minimize the use of pesticides and herbicides.
- f. Avoid development of areas particularly susceptible to erosion and sediment loss (e.g., steep slopes) and, where unavoidable, enforce regulations that minimize their impacts.
- g. Apply land use, site development, and zoning regulations that limit impacts on, and protect the natural integrity of topography, drainage systems, and water bodies.
- h. Enforce maintenance requirements in development permit conditions.

CE-E.3. Require contractors to comply with accepted storm water pollution prevention planning practices for all projects.

- a. Minimize the amount of graded land surface exposed to erosion and enforce erosion control ordinances.
- b. Continue routine inspection practices to check for proper erosion control methods and housekeeping practices during construction.

CE-E.4. Continue to participate in the development and implementation of Watershed Management Plans for water quality and habitat protection.

CE-E.5. Assure that City departments continue to use "Best Practice" procedures so that water quality objectives are routinely implemented.

- a. Incorporate water quality objectives into existing regular safety inspections.
 - b. Follow Best Management Practices and hold training sessions to ensure that employees are familiar with those practices.
 - c. Educate City employees on sources and impacts of pollutants on urban runoff and actions that can be taken to reduce these sources.
 - d. Ensure that contractors used by the City are aware of and implement urban runoff control programs.
 - e. Serve as an example to the community-at-large.
- CE-E.6. Continue to encourage "Pollution Control" measures to promote the proper collection and disposal of pollutants at the source, rather than allowing them to enter the storm drain system.
- a. Promote the provision of used oil recycling and/or hazardous waste recycling facilities and drop-off locations.
 - b. Review plans for new development and redevelopment for connections to the storm drain system.
 - c. Follow up on complaints of illegal discharges and accidental spills to storm drains, waterways, and canyons.
- CE-E.7. Manage floodplains to address their multi-purpose use, including natural drainage, habitat preservation, and open space and passive recreation, while also protecting public health and safety.

The Conservation Element draft is available online at
<http://www.sandiego.gov/planning/genplan/index.shtml>

Mobility Element. The Mobility and Land Use elements of the General Plan Update are closely linked. An overall goal of the Mobility Element is to further the attainment of a balanced, multi-modal transportation network that improves mobility and minimizes environmental and neighborhood impacts, including storm water and urban runoff pollution. The element includes a wide range of policies which advance a strategy for congestion relief and increased transportation choices in a manner that strengthens the City of Villages land use vision and fosters storm water pollution prevention by reducing automobile trips and demand for large parking areas. The Land Use Element identifies existing and planned land uses, and the Mobility Element identifies the proposed transportation network and strategies which have been designed to meet the future transportation needs generated by the land uses.

The Mobility Element draft is available online at
<http://www.sandiego.gov/planning/genplan/index.shtml>

Urban Design Element. This element includes language on minimizing the amount of surface parking lots for both aesthetic purposes and to allow for the infiltration of urban runoff into the ground. It calls for the use of trees and other landscape to provide shade, screening, and filtering of storm water runoff in parking lots.

The Urban Design Element draft is available online at <http://www.sandiego.gov/planning/genplan/index.shtml>

Public Facilities, Services, and Safety Element. This element specifically discusses storm water infrastructure in the City. It calls for the protection of beneficial water resources through pollution prevention and interception efforts. The element states as a goal for the City to have a storm water conveyance system that effectively reduces pollutants in urban runoff and storm water to the maximum extent practicable. It recognizes both the roles of structural and non-structural BMPs in preventing pollution in order to comply with federal and state mandates regarding storm water pollution and the need for the City to engage in comprehensive storm water planning, secure funding sources, and strengthens cooperation with other stakeholders in the region. The primary goals related to storm water are for the protection of beneficial water resources through pollution prevention and interception efforts, and for the storm water conveyance system that effectively reduces pollutants in urban runoff and storm water to the maximum extent practicable. The Public Facilities, Services, and Safety Element policies that relate to urban runoff management are included below:

- PF-G.1. Ensure that all storm water conveyance systems, structures, and maintenance practices are consistent with federal Clean Water Act and California Regional Water Quality Control Board NPDES Permit standards.
- PF-G.2. Install infrastructure that, where feasible, includes components to capture, minimize, and prevent pollutants in urban runoff from reaching receiving waters and potable water supplies.
- PF-G.3. Meet and preferably exceed regulatory mandates to protect water quality in a cost-effective manner monitored through performance measures.
- PF-G.4. Develop and employ Master Drainage Plans for the City's watersheds to foster a comprehensive approach to storm water infrastructure improvements.
- PF-G.5. Identify and implement BMPs for projects that repair, replace, extend or otherwise affect the storm water conveyance system. These projects should also include design considerations for maintenance, inspection, and, as applicable, water quality monitoring.
- PF-G.6. Identify partnerships and collaborative efforts to sponsor and coordinate pollution prevention BMPs that benefit storm water infrastructure maintenance and improvements.

The Public Facilities, Services, and Safety Element is available online at <http://www.sandiego.gov/planning/genplan/index.shtml>

Recreation Element. This element recognizes the importance of parks and open space in the City not only for recreational purposes, but also to allow for the infiltration of urban runoff into the ground. The primary goals related to storm water are to preserve, protect and enhance the integrity and quality of existing parks, open space, and recreation programs citywide, and to preserve, protect and enrich natural, cultural, and historic resources that serve as recreation

facilities. The recreation element contains a policy to protect beaches and canyons from uncontrolled urban runoff.

The Recreation Element is available online at <http://www.sandiego.gov/planning/genplan/index.shtml>

Edits are underway to the Draft General Plan in response to public comments received on the Draft General Plan and the associated Draft Environmental Impact Report. The Final Public Review Draft (October 2006) General Plan represents an important step toward the completion of the General Plan Update. The General Plan Draft Program EIR was released on April 26, 2007 and was available for a 60 day public review and comment period. City Council adoption of the General Plan Update is anticipated to be in the winter of 2007-2008.

7.1.2 Community Plans

Community plans are documents that guide the growth and development of a community. They include land use designations, design recommendations, and policies on a wide range of topics, including water quality protection. They are a part of the City's General Plan and the City is continuing to implement the Community Plans where applicable. Community-specific policies for storm water include:

- **Mission Valley Community Plan** – The Mission Valley Community Plan makes broad recommendations concerning the protection of urban runoff and storm water quality. Updates to the plan are significant to water quality since the San Diego River flows through Mission Valley. The Plan will reference or incorporate recommendations contained the San Diego River Master Plan. During FY 2007 Internal City staff meetings were held to continue the process of updating the Community Plan.
- **Ocean Beach Precise Plan Update** – The Ocean Beach Precise Plan is currently undergoing an update and will become known as the Ocean Beach Community Plan. The Ocean Beach Community Plan will have broad goals and recommendations relating to urban runoff and water quality. Goals will include: ensuring a reliable system of water, storm water, sewer facilities to serve the existing and future needs of the community; preserving the natural amenities of Ocean Beach, such as its open space, coastal bluffs, beaches, tidepools, and coastal waters; and protecting coastal and waterway resources by promoting sensitive development and restoring and preserving natural habitat. During FY 2007 the Ocean Beach Precise Plan Update Subcommittee met and reviewed draft elements of the Plan and offered revisions to City staff.

7.1.3 Street Design Manual

In November of 2002, the City Council approved a revision of the Street Design Manual that included guidelines for reduced impervious surfaces and increased natural filter systems. These guidelines included reduced street width standards (curb to curb) for local residential streets, parkway standards (curb to property line) that allow large canopy form tree species to be planted along with a wider area for landscaping opportunities, design provisions that allow landscaping opportunities in the majority of the surface area of raised islands (e.g., raised medians), and design requirements that required all traffic calming installations to have a landscape element. Such designs improve filtration of storm water. Throughout FY 2007, the Street Design Manual was applied to new development.

7.1.4 *Drainage Design Manual*

The Engineering and Capital Projects Department began work in FY 2006 on a City supplement to the County of San Diego's *Drainage Design Manual* and *Hydrology Manual*. As part of this effort, the Engineering and Capital Projects Department began coordinating with the Storm Water Division staff to incorporate new requirements associated with storm water quality protection. The originally anticipated completion date for these efforts was 2007, however, due to resource issues, the Manual is anticipated to be completed in FY 2008.

7.1.5 *Source Water Protection Guidelines for New Development*

In FY 2004, the Water Department produced the *Source Water Protection Guidelines for New Development* (Guidelines) to guide future activities in the San Diego County watersheds that drain into drinking water reservoirs (Hodges, Sutherland, San Vicente, El Capitan, Otay, Barrett, and Morena). The Guidelines were prepared to assist municipal agencies, designers, land planners, developers, and citizens to conduct site design planning and select BMPs that protect or improve the quality of runoff draining into drinking water reservoirs. These Guidelines do not address water quality concerns during construction activities but rather help project proponents and reviewers address potential water quality issues over the life of the project by incorporating better site designs and source controls to protect source water. In addition, for large or complex projects, the Guidelines are intended to help focus the selection of treatment BMPs that are most effective (based on published studies) at reducing the pollutants of concern for drinking water protection in San Diego County.

7.1.6 *Watershed & Resource Management Plans*

San Dieguito River Watershed Management Plan

The City of San Diego, in partnership with watershed stakeholders, local jurisdictions, and other governmental agencies, led the effort to develop and begin the implementation of the San Dieguito Watershed Management Plan. The comprehensive watershed-based management plan focuses on identifying priorities and strategies for the protection and restoration of water resources, native vegetation, water flows, riparian zones, beneficial uses of waters and overall water quality. The Watershed Management Plan includes the following: a watershed assessment, a watershed existing conditions report, a list of issues of concern, watershed goals and objectives, and a watershed action plan. Progress regarding the implementation of the San Dieguito Watershed Management Plan is reported in the Fiscal Year 2007 San Dieguito River Watershed Urban Runoff Management Program Annual Report.

Chollas Creek Enhancement Program

Chollas Creek is a natural drainage system that traverses inner-city neighborhoods within the Greater Mid-City (City Heights, Eastern), Encanto Neighborhoods, Southeastern San Diego, and Barrio Logan communities, from its headwaters in La Mesa and Lemon Grove to San Diego Bay. The historic channel and floodplain of Chollas Creek has been altered substantially as a result of decades of development and human activity. Today, the Chollas Creek-bed is an urban creek with little native vegetation, and much of the channel is armored or is concrete channel and culverts. The Chollas Creek Enhancement Program is intended to foster the restoration and rehabilitation of the creek's remaining wetlands, using existing wetland remnants as the source for wetland mitigation and enhancement for projects that disrupt wetland environments within the Chollas Creek geographic area and hydrological basin.

Progress regarding the implementation of the Chollas Creek Enhancement Program is reported in the FY 2007 San Diego Bay Watershed Urban Runoff Management Program Annual Report.

San Diego River Park Master Plan

The San Diego River corridor has been degraded by development and sand and gravel mining. The San Diego River Park planning effort, led by the Park and Recreation Department, seeks to improve water quality, sediment transport, and groundwater recharge, while also expanding riparian habitat. The master plan contains principles and recommendations for restoring San Diego River water quality, among other goals. During FY 2007 City staff continued to develop the draft San Diego River Park Master Plan for eventual adoption by the City Council. The City has been working to hire a consultant to prepare the program Environmental Impact Report for the Plan and an economic impact analysis.

Progress regarding the preparation and implementation of the San Diego River Master Plan is reported in the FY 2007 San Diego River Watershed Urban Runoff Management Program Annual Report.

San Dieguito River Park Concept Plan

This plan establishes the vision and goals for the future use of the San Dieguito River Valley. It describes the plan context and purposes, discusses planning considerations, and identifies plan objectives. It serves as a policy document for the San Diego River Park Joint Powers Authority. The overall goal of the plan is to: preserve land within the Focused Planning Area of the San Dieguito River Park as a regional open space greenway and park system that protects the natural waterways and the natural and cultural resources; provide compatible recreational opportunities that do not damage sensitive lands; and provide a continuous and coordinated system of preserved lands with a connecting corridor of walking, equestrian, and bicycle trails encompassing the San Dieguito River Valley from the ocean to the river's source and beyond.

San Pasqual Vision Plan

The purpose of the San Pasqual Vision Plan is to set forth a comprehensive vision for the San Pasqual Valley and action items for its protection. Plan goals include protecting the quality and capacity of the San Pasqual/Lake Hodges groundwater basin to ensure that this invaluable asset as a water resource is not compromised and ensuring the long-term protection of the Valley's unique agricultural, biological, and water resources. This includes, for example, restricting urban development in the valley, which simultaneously helps protect its agricultural assets and preserve its natural infiltration capabilities to treat storm water. The City Planning and Community Investment Department is responsible for implementing various components of this plan.

7.2 PROJECT PLANNING AND DESIGN

7.2.1 Storm Water Development Regulations

In December 2002, the City began implementation of the *Storm Water Standards Manual* for both private and public projects. The *Storm Water Standards Manual* incorporated additional permanent (including Standard Urban Storm Water Mitigation Plan, or SUSMP, requirements) and construction BMP requirements with the City's existing storm water-related development regulations, to reduce pollutants and control runoff flows from all new development and redevelopment projects. To help simplify the process and improve implementation of the requirements, all of the City's storm water-related requirements are included in the *Storm Water Standards Manual*. As an implementation manual to the City's Municipal Code, the *Storm Water Standards Manual* benefits from the unique position of being fully enforceable and "updateable" as new innovations occur or state construction or permanent BMP requirements

change. During the project planning and design review phase of development, the permanent and construction BMP requirements in the *Storm Water Standards Manual* are applied to development projects as further described below.

7.2.1.1 *Public Projects*

The Engineering and Capital Projects (ECP) Department is responsible for planning, design, and construction of most capital improvement projects (some capital improvement projects are managed by the Water Department, the Metropolitan Wastewater Department, and the Park and Recreation Department). All project managers of capital improvements program (CIP) projects that awarded construction contracts on or after December 10, 2002, have been required to incorporate the applicable permanent BMP requirements set forth in the *Storm Water Standards Manual* into the project (specifications and plans) during the design and contract award phases to ensure that storm water issues have been addressed in the project's permanent design. To assist project managers, storm water language was included in the CIP contract document (boilerplate) specifications along with standard drawing details. Drawings are routed internally (within the design sections) as part of a process termed "peer plan check" for a check on water quality design measures. When a project design has reached the 90% design level the project is routed to the Storm Water Division staff for a more detailed, formal, and mandatory review. Revisions are made to the design and then, at the project manager's discretion, the project is routed to the Storm Water Division staff for a more detailed and formal review. If permanent treatment BMPs are required, the design is discussed and coordinated with the department that will be maintaining the permanent BMP facility after it is built. All ensuing comments are routed back to the project managers for revision prior to the release of the construction drawings for bid.

The Storm Water Division provides an optional review of CIP projects for compliance with the City's *Storm Water Standards*. In FY 2007 the Storm Water Division reviewed 29 CIP projects. In addition to the plans, the Storm Water Division's engineering review staff often reviews Water Quality Technical Reports (WQTR), Storm Water Pollution Prevention Plans (SWPPP), and Water Pollution Control Plans (WPCP). After each review, a memo is sent to the City project manager informing him or her whether or not the project has met the requirements of the City's *Storm Water Standards* and, if needed, what additional documents, plan revisions, etc. are required in order for those requirements to be met. In FY 2007, there were **27 CIP priority projects**, which were required to prepare WQTRs.

7.2.1.2 *Private Development*

The Development Services Department (DSD) is responsible for managing the development project review services for private development in the City of San Diego. In December 2002, the Land Development Review Division of DSD adopted and began implementation of the *Storm Water Standards Manual*. Private projects are reviewed for conformance with the *Storm Water Standards Manual* requirements by the Engineering Review and Plan Checking sections of the Land Development Review Division. To ensure consistency and adequate implementation of the storm water requirements, staff from these sections meets on a bi-weekly basis to discuss specific issues on development projects. Before discretionary projects are scheduled for decision-maker approval or ministerial permits are issued, all storm water requirements must be satisfied either on the plans or in the project conditions.

During FY 2007, **212 private priority projects** were reviewed by DSD for conformance with the *Storm Water Standards Manual*. In response to comment 6 of the RWQCB comments on the City of San Diego 2005-2006 Annual Report letter (Appendix A), the City has included a list of

the projects which were required to meet SUSMP requirements in FY 2006 and FY 2007 (See Appendix I). DSD retains this list in its Storm Water Maintenance Agreement database which will be utilized for BMP maintenance assessment purposes.

7.3 EDUCATION AND OUTREACH

7.3.1 Fact Sheets

In FY 2007, DSD continued to make available a brochure and video entitled *Grading: Doing It Right*, which provided information about proper storm water pollution prevention practices. These resources were provided to the public and aired regularly on City TV 24. Approximately 1,000 brochures were distributed, and the video aired 30 times in FY 2007. DSD also distributed approximately 2,000 brochures, "Clean Construction, A Storm Water Pollution Prevention Guide for the Construction Industry", were provided to the industry and homeowners during the permitting process.

7.3.2 Websites

In FY 2007, DSD maintained its "Development Process: Step-by-Step" website, which guides applicants through the City's development process. The site references both the *Storm Water Applicability Checklist* as well as the *Storm Water Standards Manual*. DSD also continued to provide information on the Department's website regarding storm water issues. There is a section of the web site focused on grading and includes visual examples and a "Frequently Asked Questions" page. Additionally, the *Think Blue* web site provided links to resources that could provide additional information on land use planning and storm water regulations for new development and redevelopment.

7.3.3 Training

In FY 2007, the City Planning and Community Investment Department conducted three Community Orientation Workshops during which storm water-related informational brochures were distributed to more than 70 community members.

The department also conducted informal internal and external outreach focused mainly on the Department's activities related to storm water, such as the General Plan Update and other policies and programs.

In FY 2007, DSD continued to hold weekly staff meetings to discuss storm water requirements and implementation on private development projects. In addition to these meetings, Land Development Review Division had approximately 70 employees (or 15%) trained in activity-specific storm water principles during the year. In FY 2007, the Storm Water Division's *Think Blue* training staff also conducted two activity-specific trainings of targeted City staff. The two training sessions, "Storm Water – Your Role and Responsibility", targeting Development Services Department inspectors, were held on February 26, 2007 and May 17, 2007.

In FY 2007, DSD's Inspection Services Division provided individualized training to construction industry members on proper storm water pollution prevention and BMP techniques. Typically this was done at the counter and in the field where direct contact could occur. In addition, Inspection Services Division held twelve monthly meetings in 2007 to educate the construction and development communities.

In FY 2007, the Field Engineering Division continued to provide storm water activity-specific training to its resident engineers before the start of the dry and wet weather seasons. Storm water topics were discussed as needed at the monthly meeting of resident engineers. Approximately 80 staff (100% of the staff responsible for storm water inspections) received training on activity-specific storm water principles.

7.4 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Land Use Planning for New Development Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

8 CONSTRUCTION

The City continued to implement the Construction Component of its Jurisdictional Urban Runoff Management Plan (JURMP) in FY 2007 to prevent and reduce pollutants in runoff from construction activities within the City. Highlights of the Construction Component include development of education and outreach materials, development and participation in various trainings and workshops to educate staff and the professional industry, implementation of a review program to ensure compliance with storm water requirements, inspection of construction sites, enforcement of storm water violations from construction activities, and most importantly, continued oversight of the implementation of storm water requirements at construction sites through the City's construction inspection programs. These program elements are further described below.

8.1 PRIORITY SOURCES

The construction list for FY 2007 was submitted to the Regional Board in October of 2006 and November 2006.

8.2 BMP REQUIREMENTS

Section 3.4, *Construction Contracts*, of the City's JURMP identifies the BMPs required for construction activities. These requirements are made enforceable through a series of regulations in the City's Municipal Code (Storm Water Management and Discharge Control Ordinance, §43.03, and Grading Regulations, §142.02), which are implemented through construction development regulations in the City's *Storm Water Standards Manual*.

In FY 2007, Storm Water Pollution Prevention Plans (SWPPPs) were required for all projects over one acre, and Water Pollution Control Plans (WPCPs) were required for all projects where a SWPPP was not required (under one acre in size), but had a potential to impact water quality during construction. To make this determination, all projects were required to complete a "Storm Water Requirements Applicability Checklist," included as Appendix A to the City's *Storm Water Standards Manual*. Where appropriate, additional site-specific construction storm water BMPs were required in SWPPPs, WPCPs, and/or construction contracts.

8.3 BMP IMPLEMENTATION

The City conducts measures to ensure compliance with the required construction BMPs and storm water regulations. The City implements a review and approval process, conducts education and outreach efforts, performs inspections and investigations, and takes enforcement actions, where appropriate. These program components are further described below.

8.3.1 Construction and Grading Approval Process

8.3.1.1 Capital Improvement Projects

The Engineering and Capital Projects (ECP) Department is responsible for planning, design, and construction of a majority of the City's Capital Improvement Program (CIP) projects. The remainder of the City's CIP projects are managed by the Water Department, the Metropolitan Wastewater Department, and the Park and Recreation Department. All project managers of CIP projects in these departments awarding construction contracts on or after December 10, 2002, have been required to incorporate the construction requirements set forth in the *Storm*

Water Standards Manual. These requirements must be incorporated into the project (specifications and plans) during the design and contract award phases to ensure that construction storm water issues are addressed. To assist project managers, storm water language was included in the Capital Improvements Project contract document (boilerplate) specifications along with standard drawing details. Drawings are routed internally (within the design sections) as part of a process termed “peer plan check” for a check on construction BMP measures. Revisions are made to the design when necessary and then if the CIP Project Manager chooses, routed to Storm Water Division staff for a more detailed and formal review. The drawings are simultaneously routed to the Field Engineering Division of the Engineering and Capital Projects Department for a constructability review and for evaluation of the adequacy and implementation of during-construction storm water protection plans. All ensuing comments are routed back to the project managers for revision prior to the release of the construction drawings.

8.3.1.2 *Private Projects*

The Development Services Department (DSD) is responsible for managing construction and development project review services for private development in the City of San Diego. In addition, DSD is responsible for inspecting grading and public improvement projects to ensure that the *Storm Water Standards Manual* requirements on private development projects are being implemented appropriately.

During FY 2007, DSD review staff conditioned all private projects to incorporate all necessary construction BMPs prior to the issuance of any construction permits. In addition, projects seeking construction permits were required to incorporate all construction BMPs on the plans and in the appropriate construction storm water plan (Water Pollution Control Plans were required on projects that did not require a State Construction NPDES Permit, and Storm Water Pollution Prevention Plans were required on projects subject to the State Construction NPDES Permit).

DSD issued over 800 public improvement and grading permits during FY 2007. Each of these permits had plans, which were reviewed to ensure they complied with the construction requirements found in the *Storm Water Standards Manual*. As part of the review process, DSD enforces the requirement that each development in excess of one acre submit a SWPPP and provide the Waste Discharge Identification (WDID) number.

In addition, in FY 2007, the Construction Storm Water Management Section of Field Engineering Division continued to use SWAT (Storm Water Action Team). E-mails are sent to every Resident Engineer (RE) when rain was forecasted to remind them to check the BMPs on their active sites. In addition, they continued to coordinate with the Inspection Services Division and Storm Water Pollution Prevention Division to address and enforce against activities that were not under the City’s purview with the potential to discharge pollutants.

Education and Outreach

The City conducts education and outreach efforts for construction activities. For detailed information on the City’s education efforts, including construction-related education, see Section 12, *Education*. A summary of the construction-related education efforts are provided below.

8.3.1.3 *Informational Material*

- The Field Engineering Division sent wet weather (approximately 195) and dry weather letters (approximately 135) to contractors with an active high priority construction project summarizing storm water requirements.
- DSD continued to make available a brochure and video entitled *Grading: Doing It Right*, which provides information about proper storm water pollution prevention practices. These resources were provided to the public and aired regularly on City TV 24. Approximately 1,000 brochures were distributed, and the video aired 30 times in FY 2007.
- The Construction Storm Water Management Section of Field Engineering Division distributed a storm water packet at all pre-construction meetings. Approximately 110 were distributed during FY 2007. These packets consisted of storm water-related information and the information was discussed with contractors during pre-construction meetings.
- DSD distributed approximately 2,000 brochures entitled "Clean Construction, A Storm Water Pollution Prevention Guide for the Construction Industry" in FY 2007 during the permitting processes.
- The Environmental Services Department developed a construction and demolition waste recycling video which is being used to assist with educating the construction industry on alternatives to landfill disposal.

8.3.1.4 *Websites*

In FY 2007, the *Think Blue* web site continued to provide information about construction activities requirements for storm water compliance within the City. The web site made available fact sheets as well as the City's JURMP. The web site also provided links for resources to assist with selecting and implementing BMPs for construction projects.

In FY 2007, DSD operated a web page devoted to construction industry professionals to provide them with online services and general information about the project review process and requirements. DSD's web page includes a guide for development—The Development Process: Step-by-Step. This online guide leads an applicant through the development process and has references to both the "Storm Water Applicability Checklist" as well as the Storm Water Standards Manual. In FY 2007 DSD created a new grading section to the website, which includes visual examples, frequently asked questions, and directs customers to the Think Blue website (<http://www.sandiego.gov/development-services/industry/grading.shtml>).

8.3.1.5 *Outreach Events*

To members of the construction industry the Development Services Department provided individualized training during FY 2007 regarding proper storm water pollution prevention and BMP techniques.

The Field Engineering Division of ECP continued to be an active participant in FY 2007 in educating the public at the following events: Construction Management Academy, Building Industry Association Storm Water Training Sessions, American Public Works Association (APWA) Storm Water Training, Engineering and General Contractors Association (EGCA)

Storm Water Training, and outreach events to youth and college students. There were a total of 12 storm water-related outreach events conducted by Field Engineering during FY 2007.

8.3.1.6 *Internal Training and Workshops*

The following notable construction BMP-related training sessions and workshops were held for City staff in FY 2007:

- The Water Department required supervisors and crews to attend section tailgate meetings to educate them on the implementation of BMPs during cleaning and construction; responsible material delivery and storage; and solid waste recycling management.
- Water Department staff education and training were encouraged by ongoing tailgate training for Storm Water Best Management Practices that covered the following topics: implementation of BMPs during cleaning and construction, storm water issues, responsible material delivery and storage, and solid waste recycling management. There were also 23 trainings conducted during FY 2007 that focused on Storm Water Pollution Prevention, Storm Water BMPs, Storm Water Pollution Prevention – Dams and Reservoirs, and Storm Water Pollution Prevention for Field Operations.
- At the beginning of the rainy season, a Rainy Season Reminder was mailed to all Project Managers to restate the Water Department's commitment in protecting storm drains and preventing runoff. There were also advisory e-mails sent to all project managers and construction managers in advance of predicted storm events reminding them of the need to monitor and maintain storm water BMPs, before, during and after the anticipated storm event. CIP environmental staff discussed storm water pollution prevention measures at all pre-con meetings and site inspections throughout the rainy season.
- The Land Development Review Division and the Inspection Services Division of DSD conducted individualized storm water-related staff training throughout the reporting period.
- The Field Division of ECP held activity-specific training for REs in the form of pre- and post-rainy season training sessions. As-needed training for REs was also provided based on evaluations by the Regional Board, observations of Field Supervisors, and/or sites that were not complying with storm water management requirements. Additionally, storm water quality topics were discussed in the monthly RE meeting as questions arose throughout the reporting period. There were a total of 14 training events conducted by Field Division during FY 2007. Approximately 80 employees were trained – these 80 are the staff that deal with storm water inspections.
- The Development Services Department Field Inspection Division provided training to their staff on storm water pollution prevention for construction sites.
- ESD staff conducted four trainings of its construction and project managers in the City's construction and project management academies. The training focused on promoting recycling of debris during construction, the use of recycled content product in new construction, and the handling of hazardous materials/waste and lead and asbestos.

8.4 ENFORCEMENT AND COMPLIANCE

The City takes measures to ensure that construction activities are conducted in compliance with storm water regulations. These include routine inspections, hotline complaint investigations, and enforcement actions, where necessary. These steps are described below.

8.4.1 *Construction Site Inspections*

Construction sites are required to be inspected based on the frequency schedule set forth in the City's JURMP. REs in the Field Engineering Division inspect BMPs associated with grading permits (private projects) and many public projects. Those public projects that are not inspected by Field Engineering are inspected by engineers in the department carrying out the project. Building Inspectors in DSD's Inspection Services Division inspect construction BMPs associated with projects performing construction under building permits.

The Field Engineering Division's Construction Storm Water Management Section, which consists of a staff of six led by a senior civil engineer, is the support group for the Field Engineering Division on storm water-related issues, development of policies and procedures, and providing internal and external training on storm water requirements. In FY 2007, the Field Engineering Division was able to maintain the Construction Storm Water Management Section with six staff members. Their tasks included assisting with inspections of construction sites for BMP implementation, providing internal and external training, coordinating with other departments and agencies, and assisting in preventing discharges of construction related pollutants into the storm water conveyance system. They continued to patrol four different areas of the City to inspect active construction sites and to document any needed adjustments. The section also pursued enforcement actions for sites that did not implement and/or maintain BMPs.

REs inspect and issue Storm Water Notices monthly in the dry season, and at least weekly in the rainy season for high priority projects. In accordance with the City's JURMP, medium and low priority projects are inspected twice during the rainy season and as needed during the dry season. The Field Engineering Division's water notice is in triplicate form: one copy is given to the contractor, one is filed with the project, and the last copy is filed in the general storm water files with the Construction Storm Water Management section. Notices are not issued for projects that do not have any potential to discharge and may be near completion (i.e., delays or closeouts). All projects were inspected based on the required frequency. If the Storm Water Notices prove to be ineffective, then Stop Work Orders are issued.

Storm water issues are initially discussed during the pre-construction meeting and construction activities are not to begin (emergency projects are exempt) prior to the contractor having a plan in place to prevent pollutants from leaving the construction site. The plan may come in the form of a SWPPP (for sites that disturb more than one acre of soil) or a WPCP.

Based on the construction inventory that was submitted in October 2006 and November 2006, there were approximately **148 high priority, 518 medium priority, and 494 low priority active construction (CIP and private) sites. All of these sites were inspected according to the frequencies identified in the *Storm Water Standards Manual*.** Depending on the status of any given project, the Field Engineering Division is required to perform more or less frequent construction inspections. A project's priority can change from day to day. For example, a project may be going through the closeout phase in which all construction activities have been completed. For the purposes of reporting, such a project would be considered a low priority site

but would not have any storm water inspections occurring. Additionally, the priority of a construction site may change due to the activities being conducted onsite and the potential to generate pollutants that may impact water quality. Therefore, the numbers listed above are a representative approximations. As previously stated, all projects were inspected based on the required frequency. Staff members from Inspection Services Division are currently coordinating to determine the processes and procedures necessary to assign, track, and report on the priority level of each building permit issued. *As requested in comment 7 of the RWQCB comments on the City of San Diego 2005-2006 Annual Report letter (Appendix A), staff will then modify the City's Project Tracking System to enable the active tracking and scheduling of inspections (both routine ones and follow-ups) based on priority level and the rainy/dry seasons. The Development Services Department Inspection section anticipates implementing these actions under the new Municipal Permit (Order No. 2007-0001); however, in the interim inspectors will review assigned cases to ensure all projects are inspected at the required frequency.*

8.4.1.1 Capital Improvement Projects

The construction projects discussed below were inspected by construction management consultants.

Water Department CIP Projects

The Water Department's CIP Program prioritized construction projects and conducted inspections according to the criteria set forth in the City's JURMP. A storm water checklist is completed during inspections to ensure compliance with regulatory requirements and evaluate whether the BMPs are adequate and properly implemented or whether additional control practices are needed. In FY 2007, **8 high priority sites were inspected**. There were no medium or low priority construction sites identified.

Metropolitan Wastewater Department CIP Projects

In FY 2007, the Metropolitan Wastewater Department inspected approximately **10 high priority, 327 medium priority construction sites** within the Wastewater Collections Division, and **one high priority site** within the Engineering and Program Management Division.

8.4.1.2 Private Projects

The Inspection Services Division of DSD inspects building sites routinely for compliance with storm water requirements. Inspectors within the division are assigned a district and are responsible for monitoring projects in that area. Each inspector routinely monitors his/her district on a daily basis. Sites are also inspected at the request of another department or in response to complaints. The Inspection Services Division created and implemented a special correction notice that is issued when corrections pertaining to storm water pollution prevention are needed. This notice is just that: it serves to notify the contractor that improvements must be made immediately. For more egregious or repeat issues, inspectors have been trained to issue re-inspection notices, which effectively stops work on the site until the corrections are made and the site is re-inspected.

In FY 2007, 8,746 building permits were issued. All permits issued were either of medium or low priority. The Inspection Services Division conducted 11,200 inspections; however, this number includes only projects that closed out in FY 2007 and does not include projects that continued to be in progress into FY 2008. *As requested in comment 7 of the RWQCB comments on the City of San Diego 2005-2006 Annual Report letter (Appendix A), staff will then modify the City's Project Tracking System to enable the active tracking and scheduling of*

inspections (both routine ones and follow-ups) based on priority level and the rainy/dry seasons. The Development Services Department Inspection section anticipates implementing these actions under the new Municipal Permit (Order No. 2007-0001); however, in the interim inspectors will review assigned cases to ensure all projects are inspected at the required frequency.

8.4.2 Hotline Complaint Investigations

The Storm Water Division manages the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system from locations within the City, including construction areas. A total of 2,157 contacts were logged by staff, and 1,964 investigations were carried out by Code Compliance Staff (remaining contacts were requests for information). Approximately 191 investigations were conducted at construction sites in FY 2007.

8.4.3 Enforcement Actions

Departments will generally coordinate with the contractor through the RE to correct any storm water issues or potential violations. If issues are not resolved and violations occur, stop work orders are generally issued, and work is halted until the site is brought into compliance with storm water regulations. In FY 2007, stop work orders were issued by Field Engineering Division REs on three construction projects. They are listed in the following table.

Table 8-1. Stop Work Orders Issued by ECP Field Engineering Division.

Project Name	Date Issued	Date Lifted
Seabreeze at Old El Camino Real	02/21/07	02/28/07
Brittania Industrial Park	02/21/07	02/28/07
Otay Pacific	02/22/07	03/08/07

The Inspection Services Division issued 518 notices and, of that amount, 45 were charged re-inspection fees (which essentially stops work until the problem is fixed and approved during a re-inspection by the building inspector). An additional 44 projects were told to stop work except for storm water-related corrections work.

Refer to Appendix F for a table of Storm Water Division enforcement actions taken at construction sites in FY 2007.

8.4.4 Reporting of Non-Compliant Sites

Inspections or investigations where sites are determined non-compliant and pose a threat to human or environmental health are reported to the Regional Board within 24 hours of the finding. During the reporting period, there was no incident of this nature at a construction site.

8.5 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Construction Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

9 ENFORCEMENT

9.1 LEGAL AUTHORITY

The City's Municipal Code includes Storm Water Management and Discharge Control Ordinance ("Storm Water Ordinance") (§43.03) and Storm Water Runoff and Drainage Regulations (§142.01 and §142.02), which both protect citizens and water quality by prohibiting pollutants from entering the storm water conveyance system. The Storm Water Division's Investigations and Enforcement Section enforces the City's Storm Water Ordinance and implements enforcement actions via education, Notices of Violation, the administrative civil penalties and the citation processes. The City Attorney's office takes over cases when the Storm Water Division feels that prosecution in the courts is the appropriate enforcement.

9.2 ENFORCEMENT ACTIONS

Non-compliance with storm water regulations can be detected by several means. Routine inspection of municipal, industrial, and commercial facilities is one method of detection. Others include code compliance officers on patrol, referrals from other agencies and City departments, and hotline calls. Enforcement actions consist of issuances of notices of violation (NOVs), citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance*, in the City's JURMP. Table 9-1 identifies the number of enforcement actions taken during the reporting period.

Table 9-1. FY 2007 Enforcement Actions.

Enforcement Action Taken	Number Issued In FY 07
Notice of Violation	880
Administrative Citation	456
Civil Penalty	157
Prosecution	0

9.3 FINDINGS

In FY 2007, the City's Storm Water Code Compliance Officers completed 1,964 investigations. Investigations are tracked by substance discharged. Categories include: Construction Waste (i.e., cement-like material), Wash Water, Petroleum Hydrocarbons (i.e., transmission fluid, oil, gasoline), Sewage, Sediment, Effluent on ground (i.e., pool water, water, ground water), Latex Paint, Waste Water, and Other (i.e., grease, chemicals, trash, green waste, hazardous substance). Figure 9-1 shows the FY 2007 investigations by discharge type.

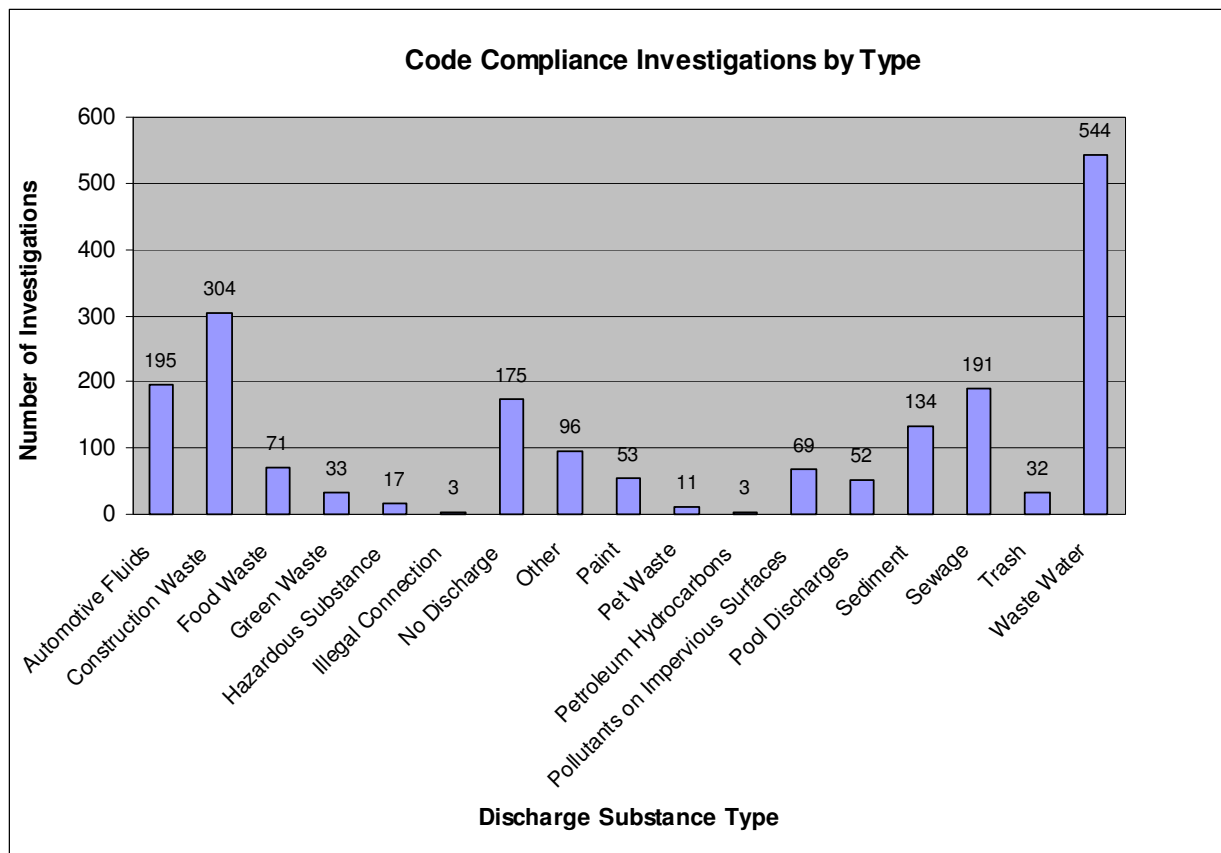


Figure 9-1. FY 2007 Investigations by Discharge Substance Type.

As a result of the City's investigations, 880 NOVs, 456 Administrative Citations, and 157 Civil Penalties were issued. During the reporting period, total penalties assessed were \$146,895.36 through Civil Penalties and \$45,700.00 through Administrative Citations, which averages to \$1,465.34 per Civil Penalty assessed and \$104.82 per Administrative Citation assessed.

9.4 FUTURE ACTIVITIES

The City will be implementing a revised Enforcement Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008. Furthermore, the Investigations and Enforcements Section has initiated the process to develop a division-wide database to further facilitate the tracking and analysis of investigations and enforcement actions. A beta version of the database is anticipated in the summer 2008. The Storm Water Division will continue to focus on refining and enhancing its enforcement database in response to Order 2007-0001 and in coordination with the other Copermitees to incorporate regional effectiveness assessment standards for cross-jurisdictional and cross-programmatic (e.g., JURMP, WURMP, and RURMP) analyses.

10 MONITORING

The City continued to implement the Monitoring Programs as identified in Section 1.4, *Water Quality Monitoring*, of the City's Urban Runoff Management Plan. The Storm Water Division either independently, or with other agencies and organizations, conducted numerous water quality monitoring studies in the San Diego region. A summary of the accomplishments in each of the monitoring programs (ongoing or completed) for FY 2007 is provided below. Findings and conclusions for the following programs (with the exception of the Toxic Hot Spots Monitoring in San Diego Bay) can be found in the *San Diego County Municipal Copermittees 2006–2007 Urban Runoff Monitoring Report* ("Monitoring Report").

10.1 DRY WEATHER MONITORING

Section 11, Illicit Discharge Detection and Elimination, of this Annual Report discusses the progress and findings made regarding the City's Dry Weather Monitoring Program in FY 2007.

10.2 URBAN STREAM BIOASSESSMENT MONITORING

To assess the ecological health of watersheds, the Copermittees hired a contractor to collect and analyze benthic macroinvertebrate samples at numerous locations throughout each watershed in FY 2007. Some of the sampling locations were located near mass loading stations so that a triad data review could be conducted. The Monitoring Report contains information and findings from sampling events conducted at a minimum of 20 reaches and three reference stations during the months of October 2006 and May 2007.

10.3 LONG-TERM MASS LOADING MONITORING

To assess the chemical characteristics of storm water urban runoff and the ability of storm runoff to support life, the Copermittees hired a contractor to collect flow weighted composite water samples and conduct chemical and toxicological analysis on samples from 10 locations in San Diego County. The mass loading stations were located near river mouths so that the water samples collected were most representative of the upstream watershed areas.

10.4 COASTAL STORM DRAIN OUTFALL MONITORING

The Coastal Storm Drain Monitoring Program is designed to identify illicit discharges into the storm water conveyance system, monitor the bacteria concentrations in receiving waters near storm drain outlets, and determine if urban runoff is negatively affecting recreational uses. The Storm Water Division coordinated through a regional monitoring work group attended by the County of San Diego Beach and Bay Monitoring staff, Copermittees in coastal areas, and consultants. During the period between November 2006 and October 2007, the City monitored 12 high-priority drains along the coast and five high-priority drains in Los Peñasquitos Lagoon on a monthly basis from November to March and on a semi-monthly basis from April to October. The City confirms that there were 357 site visits undertaken during this reporting period. At four Los Peñasquitos Lagoon sites, dual samples were unobtainable due to restrictions to entering sensitive habitats.

During winter 2006 and into spring 2007, the monitoring staff performed a coastal inventory. There are 92 known municipal storm drains that discharge to the San Diego City coastline (not including Mission Bay). The 12 priority storm drains monitored are drains that capture large drainage areas. The inventory is designed to:

- Identify each known outlet on the existing inventory; record information such as flow condition and accessibility points; and verify GPS coordinates and photographs.
- Identify and add new drains not present in the existing inventory and adding information as listed above.
- Update resource binders, paper maps, GPS database, and GIS files.

In response to Comment 8 of the RWQCB City of San Diego FY 2006 Annual Report Comment letter (Appendix A), starting in January 2008 the City will monitor all of the coastal storm drains that are safe and accessible both at the outlet and at the receiving waters. Details of this program can be found in the City's updated JURMP that will be submitted to the RWQCB in response to Order 2007-0001.

A more detailed and comprehensive report on coastal storm drain outfall monitoring can also be found as an attachment to the Unified Urban Runoff Monitoring Final Report submittal from the principal Copermittee, which represents a collaborative effort among members of the coastal monitoring workgroup. The coastal Copermittees have coordinated a comprehensive review of all monitoring data collected to determine trends, establish descriptive statistics of monitoring results, and provide information for further program evaluation and improvement.

10.5 TOXIC HOT SPOTS MONITORING IN SAN DIEGO BAY

The monitoring of San Diego Bay, formerly known as the California Bay Protection and Toxic Cleanup Program, was implemented for 10 years and identified five San Diego Bay locations that had sediment contamination causing toxicity to marine life and benthic community impairments. The California Bay Protection and Toxic Cleanup Program's goals and tasks were realigned and incorporated into the Regional Board's Pollutant Load Reduction Program. Currently, three of these areas of concern are being implemented under two TMDLs and a Cleanup and Abatement Order. For additional information on specific projects see the San Diego Bay Watershed Urban Runoff Management Program Annual Report.

11 ILLICIT DISCHARGE DETECTION AND ELIMINATION

The City has developed and implemented an aggressive program to detect and eliminate illicit discharges. The program consists of monitoring efforts, referrals and complaint investigations, MS4 and wastewater collection system inspection and maintenance, spill response and reporting, education efforts, enforcement actions, and hazardous waste collection. This program is detailed below.

11.1 DETECTION OF ILLICIT DISCHARGES AND CONNECTIONS

Detection of illicit discharges and connections is accomplished through a number of activities, including the Dry Weather Monitoring Program, MS4 inspection, Sanitary Sewer Canyon Program, hotline calls, and referrals from other sources. During the reporting period, staff conducted 69 investigations, as described below.

11.1.1 *Monitoring for Illicit Discharges*

The City's Dry Weather Monitoring Program (DWM) is designed specifically to detect and eliminate illicit connections and illegal discharges to the storm water conveyance system using frequent, geographically widespread dry weather discharge monitoring and follow-up investigations. All of the 302 DWM sites are located at storm drain outlets, manholes, or storm water catch basins. Information gathered from each monitoring site is recorded on a standard DWM Field Sheet. A total of 142 monitoring sites were visited prior to the start of the FY 2007 reporting period and are included in this report for consistency with past reports.

The City confirms the completion of required observations, field screening, and analytical monitoring of 300 of the 302 dry weather sites. A summary of monitoring activities is presented in Table 11-1. *As requested in comment 9 of the RWQCB comments on the City of San Diego 2005-2006 Annual Report letter (Appendix A), all follow up investigations will occur in compliance with the 2007 Municipal Permit, that is, within two business days of receiving the dry weather sample test results that exceed actions levels. The City will either conduct an investigation to identify the source of the discharge or provide rationale for why the discharge does not pose a threat to water quality and does not need further investigation.*

Table 11-1: Summary of 2006 Dry Weather Monitoring

Number	Monitoring Activity
302	Planned dry weather sites
2	Sites monitored- data sheets not located
300	Confirmed actual dry weather sites monitored
244	Sites with flowing or ponded water
56	Sites with no flowing or ponded water
140	Sites exceeding one or more action level
256	Total number of exceedances
240	Follow-ups that were dry, re-sampled within acceptable limits, or eliminated using Best Professional Judgement (BPJ)
16	Total number of exceedances requiring extensive investigation
12	Total number of sites requiring extensive investigation
12	Total number of investigations conducted

(1) Best Professional Judgment: Monitoring staff take into account weather conditions, storm drain structure, sample collection technique, possibility of groundwater or tidal intrusion, soil composition, and other pertinent factors.

11.1.1.1 Dry Weather Monitoring Investigation Results

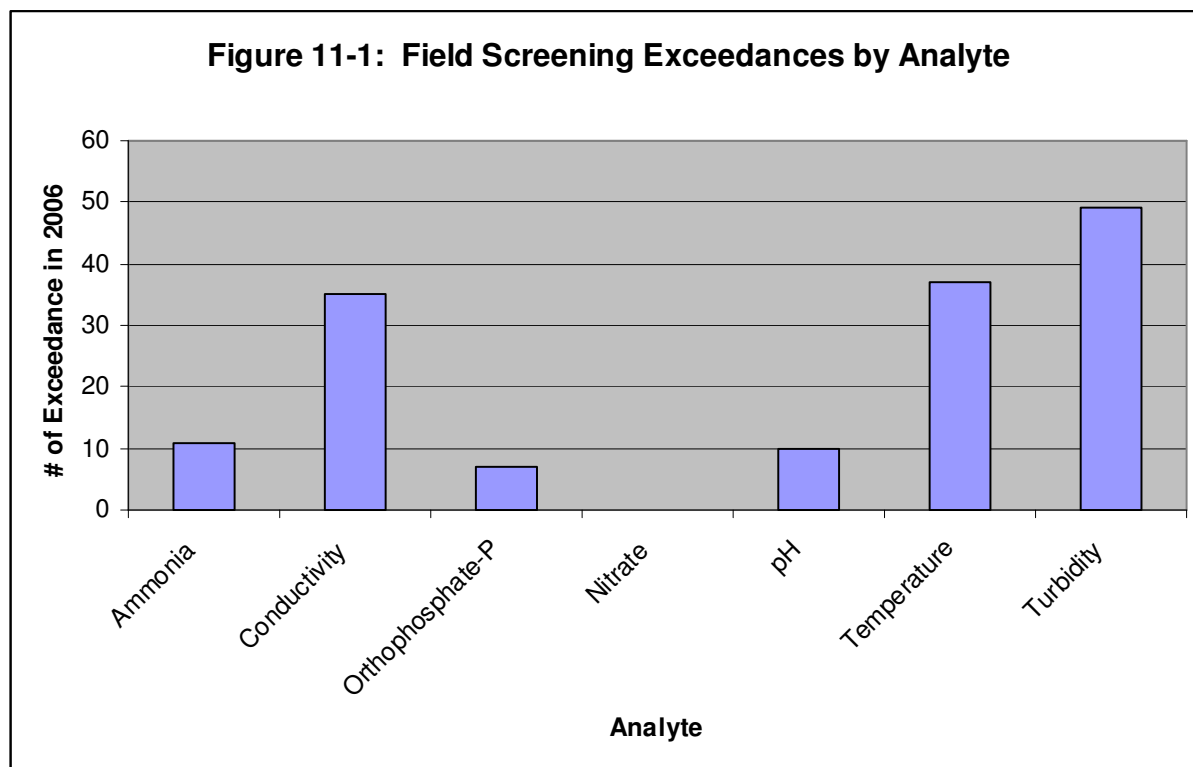
Table 11-2 presents a brief summary of investigation results. Data from the 2006 Dry Weather Monitoring season are located in Appendix E.

Table 11-2: Summary of Dry Weather Sites Requiring Follow-Up Investigations

Site ID	Routine Sample Date	Resample Date	Source/Result	Action Taken
DW021	8/14/06	11/20/06 & 12/14/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW064	5/11/06	11/6/06	Illicit Discharge	Education Materials Distributed in 2006, Administrative Citation and NOV Issued in 2007
DW120	5/10/06	8/22/06 & 11/21/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW123	7/17/06	11/15/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW133	6/26/06	11/20/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW183	6/20/06	11/13/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW188	6/20/06	11/15/06 & 11/21/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW190	6/20/06	11/15/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW213	6/26/06	9/22/06 & 11/13/06	Standing Water and Sediment in Storm Drain	Referred to Street Division for cleaning
DW238	9/20/06	6/20/07	Illicit Discharge	Education Materials Distributed, NOV Issued, Civil Penalties to be assessed

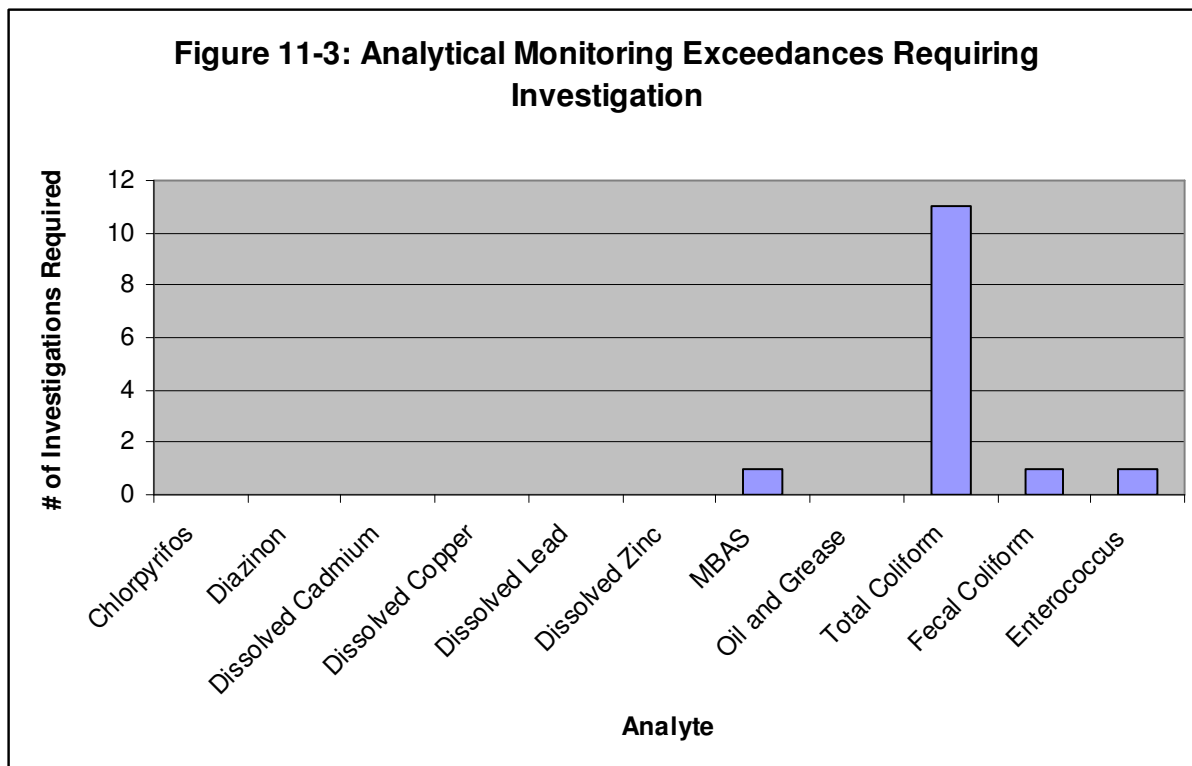
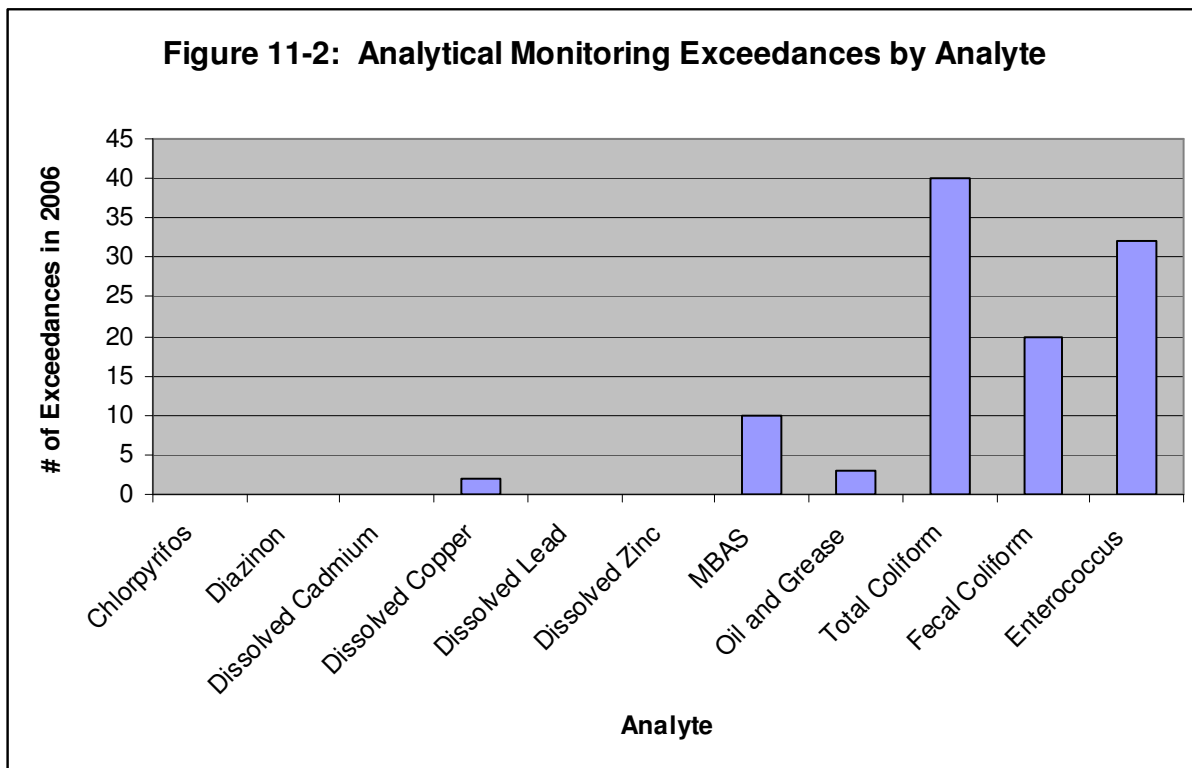
Site ID	Routine Sample Date	Resample Date	Source/Result	Action Taken
DW284	8/8/06	11/13/06	Sediment in Storm Drain	Referred to Street Division for cleaning
DW303	5/9/06	11/13/06 & 9/17/07	Ongoing	The investigation is still ongoing due to difficulty in accessing welded manholes and will be reported in the FY 2008 JURMP Annual Report. The manholes were welded shut for security purposes.

The field screening analytes that most frequently exceeded action levels were temperature, conductivity, and turbidity (Figure 11-1). Many of the sites with exceedances were found to be dry on a revisit, or were resampled and were below action levels. Many others, especially conductivity exceedances, were resolved using Best Professional Judgement. Only 2 of the 149 field screening exceedances required further upstream investigation. The field screening exceedances that required investigations were for a site with an orthophosphate-P exceedance and ammonia exceedance. An investigation was conducted at the site and resulted in the detection and elimination of an illegal discharge.



The analytical constituents that most frequently exceeded action levels were Total Coliform, Fecal Coliform, and *Enterococcus*. Many of these exceedances were resampled and were below action levels. Of the sites requiring investigation, Total Coliform was the most common exceedance. Upstream investigations of these exceedances were for the most part unproductive, except to note the prevalence of sediment and debris accumulation in the storm

drain system. Where no specific source was identified, the site was referred to the City of San Diego Street Division for cleaning. See Figures 11-2 and 11-3 below.



1.1.1.2 Non-Dry Weather Monitoring Related Investigation Results

The prescriptive monitoring requirements and associated follow-up investigations are not the only source of investigations. Monitoring staff routinely walk canyons and newly developed communities looking for hidden or new drains, drains plumbed over hillsides, and illegal discharges. In addition, monitoring staff responded to citizen and city employee referrals where complicated conditions exist and/or multiple sources make identifying a responsible party difficult. Once a responsible party is identified, the information is referred to a Code Compliance Officer for enforcement, including follow-up visits to ensure elimination of the discharge.

In FY 2007, the monitoring staff investigated 56 alleged discharges as a result of these referrals or observations, which resulted in 38 Enforcement Actions. See Table 11-3 for a summary of non-routine illicit discharge investigations. Refer to Appendix E for field data sheets and investigation information.

Table 11-3: Summary of Investigations Not Related to Dry Weather Monitoring

Number	Action
11	No Evidence of Violation
11	Investigations resulting in Notice of Violation issued to discharger
17	Investigations resulting in Administrative Citation issued to discharger
10	Investigations resulting only in distribution of educational material
5	No responsible party identified for discharge
2	Cases referred to other departments

11.1.2 MS4 Inspection

The Street Division is responsible for the routine inspection and maintenance of the City's MS4 and surrounding areas. If illicit discharges are detected while performing inspections or other field activities, the Street Division is instructed to contact the Storm Water Division for investigation.

11.1.3 Sanitary Sewer Canyon Program

The urban canyons of San Diego pose a unique challenge to the Metropolitan Wastewater Department (MWWD). If a sewer spill occurs in a canyon, it could go undetected. With approximately 250 miles of sewer lines located in the City's canyons and other non-right of way areas, MWWD has taken aggressive measures through the implementation of the multifaceted Canyon Program to reduce the possibility of a canyon sewer spill and to increase the chances that such a spill will be detected and reported quickly.

The Program included the televising of over 1,338 miles of the oldest and most problematic sewer lines in the system between 2001 and 2004, as measures to monitor the condition of sewer lines. Televising sewer lines has been an invaluable way of assessing the condition of a sewer line in real time. It can reveal blockages from debris to roots to grease; show cracks, breaks or deterioration of a pipe. In FY 2007, **103 miles** of sewer line were televised.

Physical inspection of canyons is another way to prevent sewer spills in the region's urban canyons. After every significant rainfall, MWWD's Wastewater Collection Division crews hike through portions of "critical canyons" (i.e., canyons where a sewer spill could easily end up in a river, bay or the ocean) to inspect the sewer lines and manholes. MWWD has also partnered with the San Diego Police Department to utilize police helicopters to patrol canyon areas after

significant rains. Similarly, the Department uses its Volunteer Canyon Watchers to report any indications of real or potential canyon sewer spills observed during recreational hikes through our urban canyons.

11.1.4 Hotline Calls/Referrals

The Storm Water Division operates the City's Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax) and encourages the reporting of illegal discharges to the storm water conveyance system detected within the City. The Storm Water Division uses several strategies to capture citizen attention and impart the importance of recognizing and reporting illicit discharges and connections through television and radio programming, the *Think Blue* website, and educational fliers, handouts, flying discs, pencils, dustpans, etc. In FY 2007, a total of 2,157 contacts were logged by staff, and 1,964 investigations were carried out by Code Compliance Officers (remaining calls were requests for information).

The MWWDD operates and advertises a sewer spill hotline for the reporting of sewer spills 24 hours a day, seven days a week. MWWDD crews are also on call 24 hours a day, seven days a week to respond to the calls.

11.2 ELIMINATION OF ILLICIT DISCHARGES AND CONNECTIONS

Elimination of illicit discharges and connections is accomplished by implementing measures, such as education and outreach programs designed to maintain facilities and promptly respond to and capture spills and enforcement.

11.2.1 Education

The Storm Water Division educates residents and businesses through numerous education and outreach mechanisms. Educational materials, such as flyers, door hangers, and fact sheets, are distributed during events or by Code Compliance Officers while out in the field. The materials promote preventing illicit discharges through implementation of BMPs. The BMPs relate to the three C's (i.e., control, contain, and capture), which is one key component of the storm water pollution prevention message. The City also disseminates information on the *Think Blue* website, through Public Service Announcements, community events, and workshops.

11.2.2 Complaint/Referral Investigations

Storm Water Division staff also conducts investigations of potential polluted discharges based on hotline complaints and referrals from other sources, such as other departments, agencies, etc. During FY 2007, the Storm Water Division's Monitoring Section initiated 56 IC/ID investigations from other referrals.

11.2.3 Spill Prevention and Response

The City implements spill prevention measures to eliminate and reduce the occurrence of spills and ensure that spills that do occur can promptly be contained and properly cleaned up. More detailed information about BMPs implemented during the reporting period is located in each department's FY 2007 *Activity Reporting Form* provided in Appendix B.

In addition to conducting spill prevention measures for municipal activities, the City also implements an aggressive program to educate the public and provide citizens and businesses with information needed to prevent, address, and report spills.

11.2.3.1 *Sanitary Sewer Overflow Prevention and Response*

MWWD continues to implement the measures of the Sanitary Sewer Overflow Prevention Plan and the Sewer Overflow Response Plan, to prevent and contain spills, leaks, and overflows from sanitary sewer pipe, and pump stations in the City. A copy of these plans can be obtained by calling the MWWD Collections Division at (858) 292-6484. Figure 11-5 shows the number of sewage spills each calendar year, as reported by MWWD. Although root intrusions caused a slight increase in the number of spills in FY 2007 compared to FY 2006, it is assumed that the reduction in sewer spills throughout the years has resulted in reductions to the amount of sewage discharged into the region's waterbodies and that discharge quality has improved.

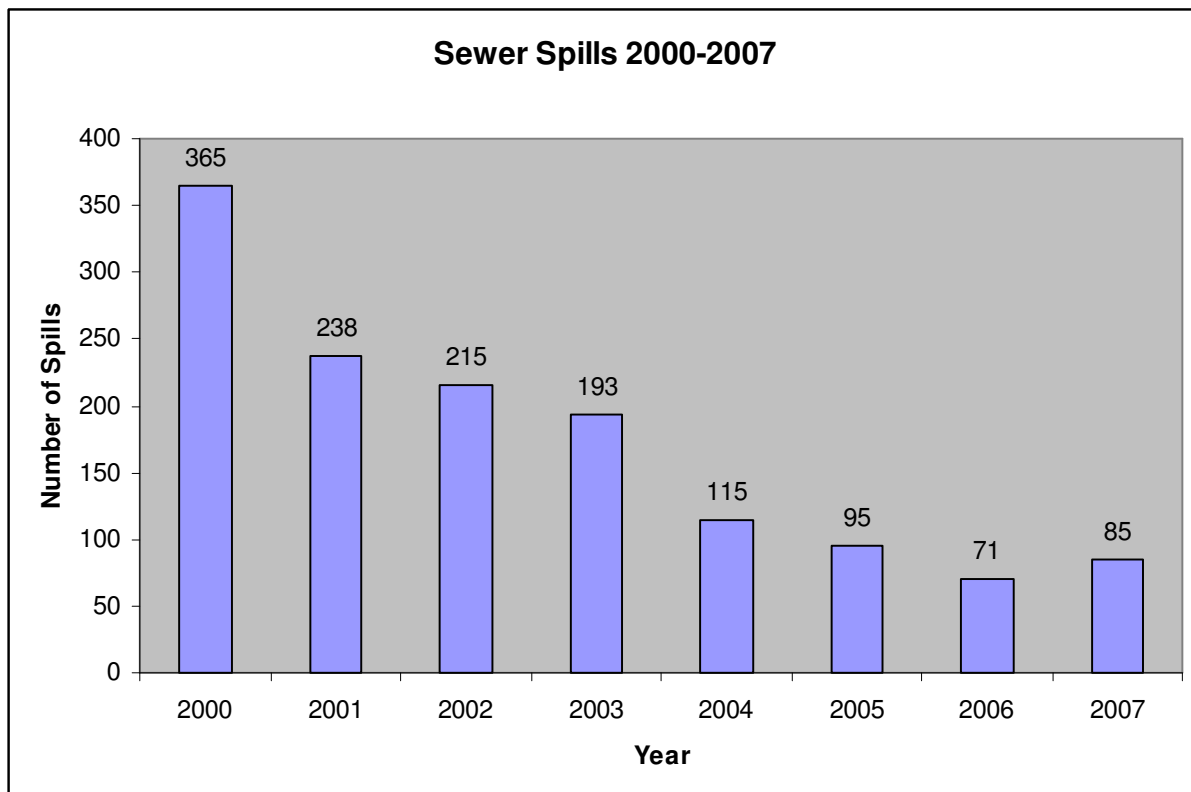


Figure 11-5. Sewer Spills by Year, 2000–2007.

The following actions are implemented to the maximum extent practicable to identify and resolve blockages and overflows and prevent seepage from the sanitary sewer to the City's MS4:

- Note the condition of sanitary sewer structures during routine maintenance and inspection, and identify areas that need repair or maintenance.
- Document suggestions and requests for repair and report the information to the appropriate manager or supervisor.
- Prioritize repairs based on the nature and severity of the problem.
- Televise sewer mains to determine their structural integrity and condition.
- Monitor the sewer infrastructure for capacity limitation.
- Patrol canyons where infrastructure exists that may be subject to damage after significant rain events.

- Implement a Capital Improvement Program that is prioritized based on need for a period of up to 10 years.
- Minimize the impact of sewage spills by using established procedures designed to protect water quality.
- Minimize the impact of sewer spills due to construction activities; all sewer contract documents include language requiring the contractor to submit a sewer spill prevention response plan.
- Utilize GPS notebooks to reduce error in logging information and requesting maintenance.
- Utilize new all surface access vehicles to maintain access to manholes while minimize habitat disturbance.

In addition to a number of the procedures listed above, other measures are taken to prevent seepage from the wastewater collection system to the City's MS4. Seepage can occur in areas where the infrastructure for the two systems is in close proximity. As part of this effort, field staff are trained to recognize suspected seepage from the sewer system to the MS4. MWWD also ensures compliance with the County Health Department's minimum requirement for the acceptable separation between the newly installed sewer pipelines and the MS4.

MWWD response crews are on call 24 hours a day, seven days a week to respond to, clean up, and repair sewer leaks and spills. Once notified, crews are mobilized and dispatched to the site to capture and contain spills and prevent further discharge. Vector trucks are generally used to collect the spill. Additional methods may be used, as necessary to properly clean the spill and any debris or litter that was mobilized as a result of the spill. Depending on the location of the spill, it may be diverted to the sewer system by the low flow diversion system if it has already reached the City's MS4.

11.2.3.2 *Grease Disposal Program*

MWWD continues to implement the Grease Disposal Program to prevent sewer line blockages and resulting spills caused by the disposal of grease into the sewer system. The program aims to educate residents and business on the proper disposal alternatives for fats, oils, and grease. This program is described in greater detail in Section 6.3.3, *Grease Disposal Program*.

11.2.3.3 *24-Hour Reporting of Spills*

In FY 2002, the City developed a 24-hour discharge reporting form, disseminating a copy of the form to applicable departments with instructions on what discharges should be reported to the Regional Board. In addition, MWWD has developed and continues to use a standard sewer overflow form to promptly notify city departments and resource agencies about the date, time, magnitude, location, and receiving water (if applicable) of sewer discharges.

During the reporting period, MWWD responded to and reported spills that either discharged to, or had the potential to discharge to, the City's MS4 or directly to receiving waters. Significant spills were reported to the Regional Board following the 24-hour criteria. Appendix G provides a list with associated information (time, date, location, actions taken to correct the problem, etc.), of the incidents reported in FY 2007 that reached receiving waters or the City's MS4.

The Water Department reports all significant discharges to the Regional Board under the Hydrostatic Test and Potable Water Discharge Permit (R9-2002-0020) issued by the San Diego Regional Board in August of 2002. There were no other reports of significant spills during the reporting period.

11.2.4 Enforcement

The City implements education efforts as well as enforcement measures to eliminate illicit discharges and connections. Mechanisms that are available in order to ensure compliance with storm water regulations include distribution of educational materials, issuances of notices of violation, administrative citations, and civil penalties. In more severe instances, cases are referred to the Consumer and Environmental Protection Unit of the City Attorney's Office for prosecution. The standard procedure for enforcing the storm water ordinance by means of these mechanisms was described in Section 1.3, *Enforcement of Storm Water Ordinance* in the City's JURMP. *In response to Regional Board comment 10 in Appendix A, in FY 2007 all illicit discharges and connections were eliminated except for DW303 (see Table 11-2) which required further investigation into FY 2008 and will be reported on in the next Annual Report.*

11.3 FACILITATE DISPOSAL OF HAZARDOUS MATERIALS

11.3.1 Collection Facilities and Events

The Environmental Services Department (ESD) operates the Household Hazardous Waste (HHW) Program for the City and is responsible for the investigation, maintenance, collection and remediation of hazardous substances including household hazardous waste from facilities, residents, vacant land and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. Refer to Table 3-3 of Section 3.3.1.2, *Municipal Separate Storm Sewer System*, for amounts of HHW collected in FY 2007 and to ESD's FY 2007 *Annual Reporting Form* in Appendix B for details on the events and activities conducted to facilitate the disposal of HHW.

11.3.2 Education

ESD conducts educational outreach programs for City residents and staff and promotes prudent purchase, use, and disposal of household hazardous waste through media announcements and distribution of educational materials. These programs designed and implemented through the Environmental Protection Division are vital to the diversion of dangerous or contaminated substances from the City's land and waterways.

The Storm Water Division conducts extensive education and outreach to San Diego residents and businesses to communicate the importance of proper disposal of hazardous materials and reporting of illicit discharges. These education and outreach efforts consist of distribution of informative materials, creating and running public service announcements on television and radio, and posting information on the *Think Blue* and Storm Water Division websites.

11.4 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Illicit Discharge Detection and Elimination Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

12 EDUCATION

The City's storm water education campaign for both the external and internal audiences is managed by the Storm Water Division of the General Services Department. The *Think Blue* campaign is a multi-faceted effort that encompasses public outreach and storm water pollution prevention advocacy, media advertising, and employee training. Section 12.1.4 below discusses the Storm Water Division's *Think Blue* campaign. Other departments also create specific materials for their staff or customer use in protecting San Diego's water quality. Information on each City department's or division's education, outreach, and training efforts can be found in the FY 2007 *Activity Reporting Forms* in Appendix B.

12.1 STORM WATER DIVISION TRAINING OF MUNICIPAL EMPLOYEES

Training was provided to municipal employees via two avenues: training developed and given by Storm Water Division staff either in general storm water training or activity-specific storm water training formats; and department-developed and -provided activity-specific storm water training described in Section 2, *Municipal*.

12.1.1 General Storm Water Training

During FY 2007, the City's New Employee Orientation sessions were held every month. All new City employees were trained in *Storm Water and You*, general storm water pollution prevention awareness. Departments performed general or activity-specific storm water training for appropriate staff, as needed.

12.1.2 Activity-Specific Storm Water Training

In FY 2007, the Storm Water Division's *Think Blue* training staff conducted two activity-specific trainings of targeted City staff. The two training sessions, "Storm Water – Your Role and Responsibility", targeting Development Services Department inspectors, were held on February 26, 2007 and May 17, 2007. Please see Section 3, *Municipal*, for additional training that was conducted by individual departments, as well as the number of employees trained.

12.1.3 Storm Water Division External Education and Outreach

In 1998, the City, with the assistance of the Unified Port of San Diego, Caltrans District 11, and the County of San Diego, funded *Think Blue*, a bilingual regional education, outreach, and media campaign. The goals of the campaign are to: raise awareness of urban runoff as a major cause of beach, bay, watershed, and recreational water pollution; and change the polluting behaviors of residents and businesses.

12.1.4 Think Blue Campaign — FY 2007

12.1.4.1 Goals and Challenges

The City's Storm Water Division goals for its FY 2007 public information campaign were the same as those with which the campaign started. These goals were as follows:

- Increase awareness that storm water flows to water bodies untreated
- Change behaviors from those that pollute water bodies to those that do not
- Increase awareness of the *Think Blue* slogan.

The conclusion of FY 2007 on June 30, 2007, was also that of the seventh year of the *Think Blue* Media, Education and Public Advocacy Campaign.

12.1.4.2 2007 San Diego Storm Water Survey

The City of San Diego Storm Water Pollution Prevention Division conducted a telephone survey of adult residents in the City of San Diego between January 31 and February 7, 2007. The purposes of the survey included:

- To explore attitudes about storm water pollution;
- To explore barriers to behavioral change that might reduce storm water pollution;
- To assess different potential motivations for change including those that address barriers; and
- To provide information that can be used in formulating a community based social marketing program.

As part of the survey 800 interviews were conducted with adult residents using a random-digit dial methodology, in which a random list of all active residential telephone numbers served as the sample. The margin of error for citywide results is plus or minus 3.4% at a 95% confidence level. Results were weighted slightly by age and ethnicity to match U.S. Census data. Interviews were conducted in both English and Spanish.

A few questions in this survey were asked in similar studies conducted in previous years. Where appropriate, the results were compared from this survey with those from previous studies. The report presents results broken out by subgroups of adult residents (e.g., by men versus women or by zip code) only if the differences are both statistically significant using standard significance testing, and are of relevance. Where statistically significant and relevant, the results are broken out by watershed.

The survey results show deep interest in and concern about storm water pollution among San Diego residents. More than three of four say that pollution of the ocean, bay, and beaches is a very important issues facing the city, matching concern about the quality of public schools.

The survey also showed that most residents indicate a willingness to take actions to help prevent storm water pollution, especially keeping trash and recycling bins covered to prevent litter, recycling used motor oil, washing paint brushes properly, sweeping rather than hosing down sidewalks, picking up litter and trash, and fixing sprinklers. Between 61% and 85% of residents rated their willingness to take these actions as a 10 on a 1 to 10 scale.

It was also found that about 45% of residents indicate strong interest in learning more about what they can do to reduce storm water pollution and beach closures due to pollution, and to reduce litter and pollution in their neighborhoods. However, residents are not that well informed about how the storm drain system works. Only 9% knew they lived in a watershed and fewer than half (46%) knew that storm drain water is not treated. For comparison, a similar question asked in 2005 in San Bernardino County found that only 19% knew storm water was not treated, but in 2003, 57% in the City of Santa Barbara knew that storm water was not treated. Overall 91% were familiar with the term "storm drain".

Just over half (55%) of residents say they saw or heard something in 2006 about ways to prevent pollution of storm drains, but only 36% said they heard anything specifically about steps the City is taking to prevent storm drain pollution. 46% percent say they have heard the slogan "Think Blue San Diego". The survey does include some possible evidence of the successful impact of past Think Blue activities: 53% of those who said they had heard about the Think

Blue campaign knew that storm water is not treated, compared to 40% who had not heard about Think Blue.

The key barriers to participation in preventing storm water pollution appear to be lack of information and perceived lack of time, along with people saying they don't go to the beach so the pollution does not affect them. One interesting barrier to proper disposal of used motor oil is lack of a suitable container for transporting it to a recycling facility.

The survey showed that the most powerful motivations for taking action to reduce storm water pollution are to protect the health of people using the ocean, to protect the marine environment, to protect the legacy we leave behind for our children, and to connect with our neighbors.

The survey's final report with detailed results can be found on the City's website (www.sandiego.gov/thinkblue/pdf/2007ressurveyfinalreport.pdf).

12.1.4.3 FY 2007 Media Purchase and PSA Airtime

During FY 2007 the City aired PSAs on both local radio and television stations reaching the English- and Spanish-speaking communities. The City contracted for \$1,280,000 in paid television and radio advertising and the advertising partners provided \$52,450 of in-kind contributions. Leveraged in-kind airings are provided when time is available in the advertiser's inventory, which is not equal through 12 months. Additionally as part of the media buy, Think Blue received an estimated \$48,230 of in-kind contributions through sponsored special events as well as free placement on media websites and free outdoor advertising.

PSAs that aired in FY 2007 are summarized in Table 12-1 below and can be found on the City's Think Blue website (<http://www.sandiego.gov/thinkblue/videos/index.shtml>). The television and radio PSAs aired a total of 7,269 times and made approximately 18,546,166 impressions.

Table 12-1 – FY 2007 Public Service Announcements

PSA	Media	Language
Roads to Beaches	Television and Radio	English and Spanish
Fowl Water	Television and Radio	English and Spanish
Water Babies	Television and Radio	English and Spanish
Photo Mosaic	Television	English and Spanish
Don't Trash Our Future	Television and Radio	English and Spanish
Ants in Your Plants	Television	English and Spanish
Chollas Creek – Flying	Television	English
Chollas Creek - Urban	Television	English

12.1.5 Print Media

In FY 2007, the City utilized billboards and transit shelters to promote Think Blue and storm Water pollution prevention awareness. A summary of the billboard and transit shelters locations and durations are included in the tables below.

Table 12-2 Billboard Locations and Durations

Location Description	Area	Start Date	End Date
El Cajon Boulevard east of Chamberlain Street	El Cajon	5/7/07	6/3/07
El Cajon Boulevard east of 73 rd Street	La Mesa	5/7/07	6/3/07
Euclid Avenue south of University Avenue	San Diego	5/7/07	6/3/07
G Street north of 15 th Street	Downtown San Diego	5/7/07	6/3/07
Imperial Avenue east of 32 nd Street	Logan Heights	5/7/07	6/3/07
Imperial Avenue south of 69 th Street	Lemon Grove	5/7/07	6/3/07

Location Description	Area	Start Date	End Date
Imperial Avenue west of 30 th Street	Logan Heights	5/7/07	6/3/07
Main Avenue south of Elder Street	Fallbrook	5/7/07	6/3/07
Pacific Highway north of Washington Street	Downtown San Diego	5/7/07	6/3/07
Rosecrans Street south of Hugo Street	Point Loma	5/7/07	6/3/07
University Avenue south of 29 th Street	North Park	5/7/07	6/3/07
Adams Avenue west of Oregon Street	North Park	3/26/07	4/22/07
Bancroft Drive north of State Route 94	Eastern Area	3/29/07	4/22/07
Broadway west of West Street	City Heights	3/29/07	4/22/07
College Avenue north of Soria Drive	College Area	3/26/07	4/22/07
El Cajon Boulevard east of 73 rd Street	La Mesa	3/26/07	4/22/07
Euclid Avenue south of University Avenue	City Heights	3/28/07	4/22/07
Federal Boulevard north of 47 th Street	Southeastern San Diego	3/29/07	4/22/07
Imperial Avenue south of 69 th Street	Lemon Grove	3/29/07	4/22/07
Imperial Avenue west of 30 th Street	Logan Heights	3/28/07	4/22/07
Market Street west of 32 nd Street	Southeastern San Diego	3/28/07	4/22/07
Pacific Highway north of Washington Street	Downtown San Diego	3/29/07	4/22/07

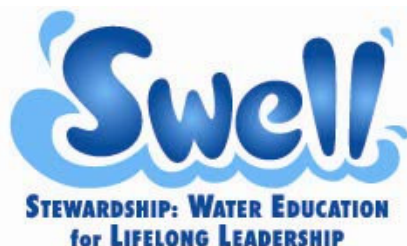
Table 12-3 Transit Shelters Locations and Duration

Location Description	Area	Start Date	End Date
Adams Avenue and Cherokee Avenue	Normal Heights	3/26/07	4/22/07
College Grove Drive at College Avenue	Eastern Area	3/26/07	4/22/07
El Cajon Boulevard and Fairmont Avenue	City Heights	3/26/07	4/22/07
El Cajon Boulevard and 54 th Street	City Heights	3/26/07	4/22/07
Euclid Avenue and Groveland Drive	City Heights	3/26/07	4/22/07
Euclid Avenue and Federal Boulevard	City Heights	3/26/07	4/22/07
Fairmount Avenue and University Avenue	City Heights	3/26/07	4/22/07
Imperial Avenue and 62 nd Street	Encanto	3/26/07	4/22/07
Market Street and 36 th Street	Southeastern San Diego	3/26/07	4/22/07
National Avenue and 38 th Street	Southeastern San Diego	3/26/07	4/22/07
National Avenue and 30 th Street	Southeastern San Diego	3/26/07	4/22/07

Copies of the billboard and transit shelter graphics are included as Appendix H.

12.1.6 School Age Education – San Diego City Schools

Project SWELL — Stewardship: Water Education for Lifelong Leadership



The City's effort to educate San Diego's youth stayed on track in FY 2007 as Project SWELL was expanded to more school grades and a new school district.

Project SWELL teaches children about the importance of the region's recreational waterways and human-water interaction through a well-balanced, comprehensive, and hands-on water quality and pollution prevention curricula.

To make this happen, the San Diego City School District, City of San Diego, and San Diego Coastkeeper have united to achieve a goal: enhance the existing science curriculum to address pressing environmental issues. The project partners have made progress in meeting these goals by developing and implementing a water quality and pollution prevention curricula for K-12 classrooms in San Diego City Schools. Below is a summary of the curricula that have been or are currently in development and implementation.

5th Grade: *Water*. Completed and in use. Project SWELL's first unit was issued to correspond with the fifth grade *Water* kit used by San Diego City Schools. The fifth grade unit reached 10,668 students in FY 2007. An assessment of the fifth grade curriculum was also conducted; however, the results are not yet available.

6th Grade: *Landforms*. Completed and in use. The sixth grade curriculum, *Landforms* kit, was completed and began circulating to 10,019 students in San Diego City Schools in the spring of FY 2006. Professional development occurred for 6th grade educators throughout the remainder of FY 2006 and FY 2007.

4th Grade: *Ecosystems*. Completed and in use. The fourth grade *Ecosystems* kit was integrated in the fall of FY2007 to 10,661 students. Professional development occurred for the 4th grade educators in the fall and winter of calendar year 2006.

Future activities:

2nd Grade: *Pebbles, Sand, and Silt*. Curriculum under development. The second grade curriculum, *Pebbles, Sand, and Silt*, will roll out to 10,222 students in Fiscal Year 2008 (Spring 2008) with professional development occurring in the Summer and Fall of 2008.

With the launch of the 2nd grade unit, which went into full rotation in September 2007, Project SWELL will be reaching over 42,000 elementary school students annually in San Diego City schools. Project SWELL has also expanded to the Oceanside Unified School District (5th and 6th grades).

12.1.7 Website

In addition to the media campaign, the Storm Water Educational web site (<http://www.ThinkBlueSD.org>) is available to the public and professional organizations as a compliance and education resource. The Think Blue website had approximately 52,678 visits during FY2007, averaging 4,390 visits a month. The month of June 2007 recorded the highest volume of visits with 7,249 hits, and June 2006 recorded the lowest number of hits in a month's time with 962. The site includes all of the campaign's informational fact sheets, brochures, the City's Urban Runoff Management Plan, the Storm Water Ordinance (Section 43.03 of the San Diego City Municipal Code), information on the Chollas Creek Environmental Improvement and Awareness Programs, Project SWELL, Total Maximum Daily Loads (TMDLs), Areas of Special Biological Significance (ASBS), a calendar of upcoming storm water events and outreach activities, the Public Service Announcements (PSAs), and other educational videos. A large portion of the site is available to browsers in both the English and Spanish languages.

12.1.8 Hotline and Other Contacts

In FY 2007, the City's Storm Water Hotline, (619) 235-1000, and other means of communication realized an increase in contacts from FY 2006 (see Table 12-4).

Table 12-4. Storm Water Division Contacts*.

Fiscal Year	Number of Contacts
2002	2,904
2003	4,206
2004	4,397
2005	3,818
2006	1,902
2007	2,158

*This table was presented in previous Annual Reports as only counting contacts made through the Storm Water Hotline.

12.1.9 Speaker's Bureau and Community Events

Table 12-5 below summarizes the outreach and education events that the City implemented and/or participated in during FY 2007 to educate the general public on storm water pollution prevention and promote the *Think Blue* slogan. While the City still conducted jurisdictional outreach, it is important to note that many of the City's outreach events were watershed focused and as such are included in the City's WURMP Annual Reports. This will be a continuing trend as the City's outreach events become more area and watershed specific. Furthermore, as the education program has become more sophisticated, we have learned that we can reach much larger audiences more effectively by focusing staff and resources on large events (such as Padres games and mass media), rather than numerous relatively minor community and neighborhood events reaching far fewer people.

Table 12-5. General Public Outreach and Education Events.

Date	Event Type	Event Title	Comments	Audience Type	Specific Audience	Estimated Audience #	Site Name/ Location
11/14/06	Conference	Industrial Environmental Association (IEA) Conference	Discussed Discharge of Fire Sprinkler Test Water	Industry	Industrial Business Owners	50	Harbor Island Sheraton
12/4/06	Storm Water Presentation	Everything You Need to Know about City Infrastructure	Covered storm Water topics	General Public	Rancho Penasquitos Kiwanis Club	16	Olive Garden – Carmel Mountain Road
12/7/06	Jurisdiction Storm water-specific Event	Naval Medical Center Environmental Division Training Elements	Protecting our beaches, bays, and watersheds	Naval Medical staff	Naval Medical Staff	500	Naval Medical Center

San Diego Coastkeeper's Ocean Gala

Storm Water (Think Blue) and the City of San Diego have participated in and attended San Diego Coastkeeper's Ocean Gala event since 1999. The City has many staff and elected officials that attend the Ocean Gala every year, including Mayor Jerry Sanders, City Attorney Michael Aguirre, Council President Scott H. Peters, Councilmember Toni Atkins, Councilmember Kevin Faulconer, Councilmember Donna Frye, Councilmember Jim Madaffer and Councilmember Brian Maienschein. FY 2007 was the second year that Storm Water's Think Blue campaign has been a sponsor. Think Blue donated approximately \$7,500 and has donated amounts up to \$5,000 in previous years. This year will be the second year that Think Blue has debuted a Public Service Announcement (PSA) at the Ocean Gala. Last Year, Council Member Donna Frye introduced the 2006 Think Blue PSA, entitled "Chollas Creek - It's the Water that Connects Us", which went on to win an Emmy for Direction.

12.1.10 Think Blue Collateral Material Development and Distribution

Table 12-6 below identifies the campaign's collateral materials available and distributed in FY 2007 by target audiences. The italicized entries were new items for FY 2007.

Table 12-6. Think Blue Collateral Materials by Target Audience.

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2007
Brochures/Training							
<i>Business License Storm Water Compliance Mailer</i>			X				76,000
<i>Think Blue Brochure – English</i>	X	X	X		X		4,409
<i>Think Blue Brochure - Spanish</i>	X	X	X		X		1,432
<i>Clean Construction Pamphlet</i>					X		1,700
Planning for Storm Water Pollution Prevention @ your Special Event Pamphlet	X	X	X				25
Household Hazardous Waste Transfer Facility Pamphlet		X					357
Boaters Best Management Practices Pamphlet		X					285
Safe Use and Disposal of Pesticides Pamphlet - English		X					125
Leader Card 3C's Employee			X				766
Leader Card 3 C's Residential - English		X					279
Leader Card 3 C's Residential - Spanish		X					121
Door Hangers (English & Spanish)	X	X	X	X			761
Boaters BMP Handbook		X					112
What's Cookin' Handbook			X				161
Green Wrench Booklet			X				50
Construction Poster					X		862
Fish Kids Coloring Page						X	506
Word Search						X	446
Water- Where Does it Go?						X	449
Integrated Pest Management Cards pack - English	X	X	X	X	X		1272
Intergrated Pest Management Cards pack- Spanish	X	X	X	X	X		1172
Vietnamese Card Sets	X	X	X	X	X		106
Somali Card Sets	X	X	X	X	X		100
Vietnamese Card Sets	X	X	X	X	X		216
RV Welcome Postcard - English		X					750
RV Welcome Postcard - Spanish		X					350

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2007
<i>SWELL: Investigation 4th Grade Curricula-Teaching Binders</i>						X	10,661
<i>SWELL: Investigation 5th Grade Curriculum Teaching Binders</i>						X	10,668
<i>SWELL: Investigation 6th Grade Curriculum Teaching Binders</i>						X	10,019
Fact Sheets							
Attention Workers	X		X	X			75
Think Blue Handout: Spills	X	X	X	X	X		22
Think Blue Handout: Automotive Fluids	X	X	X	X	X		293
Car Washing	X	X	X	X	X		450
Clean Water Leader							1150
Concrete Washout	X	X	X	X	X		1000
Construction Waste	X	X	X	X	X		2060
Dumpsters and Docks	X	X	X	X	X		575
Impervious Surfaces	X	X	X	X	X		2150
Industrial Facilities				X			350
Municipal Code	X	X	X	X	X		3100
Regulations	X	X	X	X	X		450
Restaurants			X				350
Sewage Overflow	X	X	X	X	X		300
Spills	X	X	X	X	X		850
Swimming Pools	X	X	X				350
Useful Tips for Ash	X	X	X	X	X		100
Water Discharge	X	X	X	X	X		250
Mobile Business Cards			X				7
Think Blue Bilingual Informational Card	X	X	X	X	X		22
Incentive Items (used existing stock from FY 2002 for distribution)							
Dustpans - English	X	X	X	X	X	X	977
Dustpans - Spanish	X	X	X	X	X	X	690
Pencils - English	X	X	X	X	X	X	1733
Pencils - Spanish	X	X	X	X	X	X	1250
Key Chains - English	X	X	X	X	X	X	1618
Key Chains - Spanish	X	X	X	X	X	X	1063
Stickers - English	X	X	X	X	X	X	2010
Stickers - Spanish	X	X	X	X	X	X	1950
City Folders	X	X	X	X	X	X	340
"Did you know bags" English/Spanish	X	X	X	X	X	X	440
Brooms	X	X	X	X	X	X	305
Frisbees - English	X	X	X	X	X	X	750
Frisbees - Spanish	X	X	X	X	X	X	350

Category Title	Municipal	Residential	Commercial	Industrial	Construction	Children	Quantity Distributed in FY 2007
White "FOG" Scraper	X	X	X	X	X	X	10
TOTAL DISTRIBUTED							151,550

12.2 GENERAL EDUCATION INFO FROM OTHER CITY DEPARTMENTS

In addition to the education and outreach activities spearheaded by the Storm Water Division, other departments and divisions in the City also conducted activities in FY 2007. Highlights of these efforts are presented below. For more information regarding the education and outreach activities done by City departments and divisions, refer to the *Activity Reporting Forms* in Appendix B and to Section 13, *Public Participation*.

12.2.1 Water Department

The Watershed Source Water Protection Elevator Poster: This poster contains information reflecting the importance of watersheds and reservoirs, and why their protection is vital to providing healthy and safe drinking water to our communities. In addition, the *Think Blue* logo is featured in this poster.

Letter to residents along the Miramar Reservoir: The City of San Diego Water Department sent a letter to neighbors who live along the ridge around Miramar Reservoir requesting residents to help keep the reservoir safe, beautiful, and enjoyable for all by reducing water run-off from their properties. The Department sent a letter to 11 homes and a condominium complex.

Lakes Brochure and Insert: This brochure featured operation, location, and recreation information for each of the City's nine water supply reservoirs located throughout San Diego County. Additionally, this brochure reminded patrons about their responsibility to protect water quality by disposing their trash in appropriate bins. The insert included more ways to protect water quality and had information about the Multiple Species Conservation Program. Both materials featured the *Think Blue* logo. Brochures were available at all City reservoirs and on the Water Department website. Approximately two thousand of the brochures and inserts were distributed.

Newspaper: The *Mission Times Courier* newspaper ran an article in June 2007 about the top things to do at Murray Reservoir. Integrated in this list of fun activities is the reminder to protect water quality by keeping the reservoir area clean and picking up after your pets.

California Friendly Plants: A Smart Alternative was an article distributed to local press and media about how the benefits of these plants. California friendly plants require less fertilizing, cultivating and irrigation, thus reducing the likelihood of harmful runoff reaching San Diego's waterways. The *Think Blue* logo and contact number was also included in the article. This was distributed primarily to industry publications in July/August 2006.

2006 Annual Drinking Water Quality Report: This report was mailed to 570,204 residential and commercial customers in the City. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The *Think Blue* logo, website, and phone number were also featured in the report.

Additionally, a Watershed Newsletter was included in the report with information on the City's efforts to maintain and protect our reservoirs and watersheds, and features a list of community resources that one can access to learn more about participating in local water quality protection efforts.

A message in Spanish was included on the outside of the English-language report; directing customers to call the Public Information Office if they wished to receive a Spanish language version of the report. The Public Information Office received approximately 26 requests for the Spanish report. The report also contained the Water Operations Public Information Office phone number and an e-mail address where customers can write for more information or comment on the report. The department received many complimentary phone calls and e-mail messages in response to the report. Reports in English and Spanish were also distributed to libraries, community service centers and other key community locations.

City of San Diego Weekly Web Feature: The home page featured an accessible link to the 2006 Annual Drinking Water Quality Report. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The *Think Blue* logo, website and phone number were also featured in the report.

Watershed Boundary Sign Program: The City of San Diego Water Department received unanimous approval from the State Caltrans Traffic Control Devices Committee to begin a pilot Watershed Boundary Sign Program (WSP). The City's six signs have been produced and installed along public roadways located near three of our reservoirs. The signs promote storm water pollution prevention awareness. The goal is to create opportunities to learn about the importance of watersheds, drinking water reservoirs, and encourage community stewardship of watersheds. A media and outreach campaign is supplementing the pilot program. In FY 2007, the water department:

- Created and produced mock pilot sign
- Presented WSP to Project Clean Water Outreach Workgroup and Education TAC, and the Storm Water Copermittees
- Placed an ad in San Diego Family Magazine (June 2006)
- Placed an ad in North County Times newspaper daily for weeks
- Placed an ad in the East County Gazette weekly newspaper for six weeks
- Placed 20 radio public service announcements on two Clear Channel stations
- Placed a cinemedia ad at the Mira Mesa Edwards Theater and Parkway Plaza Regal Cinemas for six weeks
- Created an online survey
- Created a program webpage
- Ran a bulletin slide of our ad on City TV
- Posted a poster at the Reuben H. Fleet Science Center near the water cycle and Think Blue exhibit
- Created and distributed 2 issues of the Watershed Sign Program newsletter

12.2.2 Qualcomm Stadium

In FY 2007, stadium representatives and a City storm water liaison met with parking lot vendors and clients on site and discussed storm water issues and proper storm drain management and protection methods. All parking lot contracts and agreements issued to clients and vendors included enforceable language on proper storm drain protection.

12.2.3 *Park and Recreation Department*

In FY 2007, over 15 free educational programs were conducted by Park and Recreation Department staff and volunteers. These education programs included storm water awareness. In addition, 803 clean-up events were coordinated at the City's parks, beaches, and bays. Over 6,000 brochures were printed or reprinted for storm water education, and approximately 50 signs, kiosks, or displays were created or updated involving storm water awareness. The park use permits issued to the public by the department (approximately 8,500 annually) included education and language on storm water pollution prevention. The Park and Recreation Department implemented the City's No Smoking ordinance for beaches and bays within the City which included staff education and installation of over 300 public signs. By prohibiting smoking it is hoped the number of cigarette butts entering the water will be reduced.

12.3 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Education Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

13 PUBLIC PARTICIPATION

13.1 PUBLIC PARTICIPATION

The following is a summary of activities that various City departments conducted that facilitated public participation on water quality issues in FY 2007.

13.1.1 Airports: Brown and Montgomery

In FY 2007, the Airports Advisory Committee held meetings which involved staff from both Brown Field and Montgomery Field as well as representatives of airport users, tenants, and community planning groups directly affected by the two airports. The forum provided opportunities for public input on airport issues, including storm water. The Airports Advisory Committee met once a month for a total of 12 meetings in FY 2007.

13.1.2 Development Services Department (DSD)

In FY 2007, the public was offered a myriad of opportunities (a minimum of 2 per week and approximately 350 per year) to participate in water quality issues via environmental document reviews, City Council hearings, Planning Commission hearings, and Hearing Officer meetings during the project review process. In addition, DSD provided individualized training to staff on storm water pollution prevention for construction sites.

13.1.3 Engineering and Capital Projects – Field Engineering Division

The following public participation opportunities (and the number of opportunities) were open to the industry and/or general public in FY 2007:

- Construction Management Academy (open to industry attendance) (1)
- Building Industry Association Storm Water Training Sessions (City-cosponsored) (2)
- American Public Works Association (APWA) Storm Water Training Session (3)
- Engineering and General Contractors Association (EGCA) Storm Water Training (2)
- Youth and College Student Outreach (1)
- Meetings with the Construction Industry

13.1.4 Metropolitan Wastewater Department

Metropolitan Wastewater Department (MWWD) participated in numerous outreach activities to involve the public in storm water related issues and provided the opportunity for comment and involvement. Staff from the Food Establishment Waste Discharge (FEWD) Program attended two expositions and distributed approximately 3,500 brochures related to the proper handling and disposal of fats, oil, and grease to reduce sanitary sewer blockages which could cause spills. The FEWD division also produced a video discussing the FEWD Program and the purpose of the FEWD permit system and the proper ways to dispose of fats, oils, and grease. Whenever a sewer spill/problem occurs that was caused by grease in a residential area, all residents upstream of the effected line are mailed a postcard informing them on the proper way to dispose of fats, oils, and grease.

Finally, MWWD also participates in the Canyon Watchers program. The Canyon Watchers program is a cooperative effort between MWWD and the San Diego Oceans Foundation. The program relies on volunteers who regularly walk in San Diego's urban canyons and inspect the sewer manholes for signs of leaks or deterioration of any kind. Instead of regular meetings, the

canyon watchers submit online reports of their observations to either the MWWWD website or the Oceans Foundation website. If the volunteers see a sewage spill, they are directed to immediately call the sewer emergency line (619-515-3525) and report the problem and MWWWD crews respond.

13.1.5 Planning Department

The City Planning and Community Investment Department (Planning Department) staffed many public meetings, workshops, and hearings where water quality issues were discussed. Major public outreach activities in FY 2007 are described below.

13.1.5.1 General Plan Update

It has been the goal of the Planning Department to increase community involvement and expand the role of public participation in the process of developing a new General Plan. The Planning Department has engaged the public using four primary methods; a series of forums, mass email distributions, workshops, and presentations and meetings. The form and type of public outreach and participation has varied from element-to-element based on the variety and number of interested groups associated with the element.

The Planning Department has built up an e-mail database with over 1,200 contacts of individuals and organizations interested in the General Plan Update. Over 350 of these contacts have elected to receive updates on Conservation Element issues and events.

Because of active participation from the Storm Water Division, the Draft General Plan incorporated significant language regarding storm water and urban runoff pollution prevention in the following elements: Conservation; Mobility; Urban Design; Public Facilities, Services, and Safety; and Recreation.

The most recent revision to the draft General Plan and additional information is available online at <http://www.sandiego.gov/cityofvillages>.

13.1.5.2 Community Orientation Workshop

Planning Department staff presented storm water educational materials at the Community Orientation Workshop, which is an introductory training session for the members of the City's forty-two community planning groups.

13.1.6 Water Department

The 2006 Annual Drinking Water Quality Report was mailed to 570,204 residential and commercial customers in the City. The report included special sections on the Drinking Water Source Assessment and Protection (DWSAP) Program and Watershed and Source Water Protection. The *Think Blue* logo, website, and phone number were also featured in the report. Additionally, a Watershed Newsletter was included in the report with information on the City's efforts to maintain and protect our reservoirs and watersheds. It features a list of community resources that one can access to learn more about participating in local water quality protection efforts. The City's home webpage featured a link to the Report.

A message in Spanish was included on the outside of the English-language report; directing customers to call the Public Information Office if they wished to receive a Spanish language version of the report. The Public Information Office received approximately 26 requests for the Spanish Report. The Report also contained the Water Operations Public Information Office phone number and an e-mail address where customers can write for more information or comment on the Report. The department received many supportive phone calls and e-mail

messages in response to the report. Reports in English and Spanish were also distributed to libraries, community service centers, and other key community locations.

Staff from various sections of the Water Department attended numerous events such as Council District meetings, community planning group meetings, community fairs and festivals, town council meetings, and construction meetings. Members of the public were given the opportunity to provide feedback to the department regarding its water quality activities via meetings and also via the department's website.

In addition, the construction update newsletter for the Alvarado Water Treatment Plant Upgrade and Expansion Project, AWTP Waterlines, was distributed to 6,913 residents, businesses and community facilities during the summer of 2006. The newsletter included the Think Blue logo and an article describing Best Management Practices (BMPs) for the use of pesticides and herbicides. The article also cited where BMP brochures could be obtained by the public.

Staff also continued to develop partnerships and collaborations with other related local and regional organizations to promote the importance water quality protection. The following is a list of other public participation opportunities that the Water Department was actively a part of in FY 2007:

- Water Department represented the City of San Diego to the newly formed San Dieguito Watershed Council. There were three meetings of the Council in FY 2007.
- The Water Department represented the City of San Diego to the San Diego Integrated Regional Water Management Plan [IRWM Plan]. There were six public workshops for the IRWM Plan and ten public meetings of the Regional Advisory Committee to the IRWM Plan. The IRWM Plan aims to integrate source water production, source water protection, watershed management, water quality monitoring, and storm water management across multiple jurisdictions and stakeholders.

13.1.7 General Services Department

The Storm Water Division is actively involved with implementing mechanisms of public participation. During FY 2007, the Storm Water Division held two public workshops to involve the public in the restoration of Chollas Creek. The Storm Water Division also seeks public comment on the Think Blue website. The website provides information and links to documents that are available for public comment and offers a mechanism for the public to submit their comments online.

13.2 FUTURE ACTIVITIES AND PROGRAM AMENDMENTS

The City will be implementing a revised Public Participation Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008.

14 ASSESSMENT OF JURMP EFFECTIVENESS

14.1 METHODOLOGY

The primary responsibility for the assessment of the overall program lies with the Storm Water Division. However, other departments and divisions subject to requirements within the JURMP are responsible for self-evaluation and reporting to the Storm Water Division. As part of the reporting process, departments quantified activities relevant to each component of the JURMP and provided a qualitative account of specific component activities. Each department also provided financial information on storm water expenditures for FY 2007 (refer to Section 15, *Fiscal Analysis*). Completed department FY 2007 *Annual Reporting Forms* are provided in Appendix B.

This Section assesses the City's efforts at two scales. First, at a broad scale, this Section provides an assessment of the City's overall storm water quality protection efforts. Because this assessment covers efforts City-wide, the assessment relies on correspondingly broad sets of data and analyses. Second, at a program-specific scale, this Section provides a quantitative and qualitative assessment of each JURMP program area. As in past years, the City relies predominantly on qualitative assessments of program activities in this year's assessment, and, where possible, direct quantitative measures are used to assess effectiveness. The program-specific assessment also includes analysis of each program's strengths and weaknesses.

This assessment has been conducted using the assessment approach and data categorization methodology developed by the Copermittees. The levels of data are listed below.

- Level 1: Compliance with Activity-Based Permit Requirements
- Level 2: Changes in Knowledge or Awareness
- Level 3: Behavioral Change/BMP Implementation
- Level 4: Load Reductions
- Level 5: Changes in Discharge Quality (no analysis at this level)
- Level 6: Changes in Receiving Water Quality

Please note that in addition to relying on activity-based permit requirements as Level 1 data, the Storm Water Division uses non-Permit requirement targets that the City has identified as internal measures to assist in evaluating the effectiveness of program efforts.

In response to Comment 14 of the RWQCB City of San Diego FY 2006 Annual Report comment letter (Appendix A), mechanisms to track and report information that will assist in evaluating the effectiveness and efficiency of program efforts are being developed as part of the city's updated urban runoff management programs required by the new Municipal Permit (Order No. 2007-0001).

In addition, although the letter was received after the FY 2007 reporting period had ended. However, some of the requested information was completed in FY 2007. For example, the City conducted a city-wide survey in FY 2007 to assess whether knowledge/awareness (assessment level 2) had changed or improved from previous fiscal year surveys. The City also gathered information on BMP implementation during commercial and industrial inspections to assess any changes (Appendix D).

14.2 OVERALL PROGRAM ASSESSMENT

The City is working to collect data sets that span several years and to improve the overall program assessment process. In addition, the City will continue to collaborate with its Copermittees in the periodic updating of the *San Diego Storm Water Copermittees Jurisdictional Urban Runoff Management Program Baseline Long-Term Effectiveness Assessment*, or BLTEA, which will provide Levels 5 and 6 data for use in analysis. Through the BLTEA, the City will be able to draw stronger conclusions regarding the trends in the quality of our receiving waters and effectiveness of our water quality protection efforts.

In the interim, however, it should be noted that the percentage of beach advisories and closures as compared to total beach mile days possible has continued to trend downward from calendar years 2000 through 2006 (see Figure 14-1). This Level 6 data is an indicator of continued improvement in receiving water quality within the City, which is the ultimate management goal of the Storm Water Division. Although it is premature to draw conclusive linkages between program efforts and receiving water quality, it can be inferred from this data that the City's, and specifically the Storm Water Division and MWWDD's efforts have, to some degree, positively contributed to protection of surface water quality in the region.

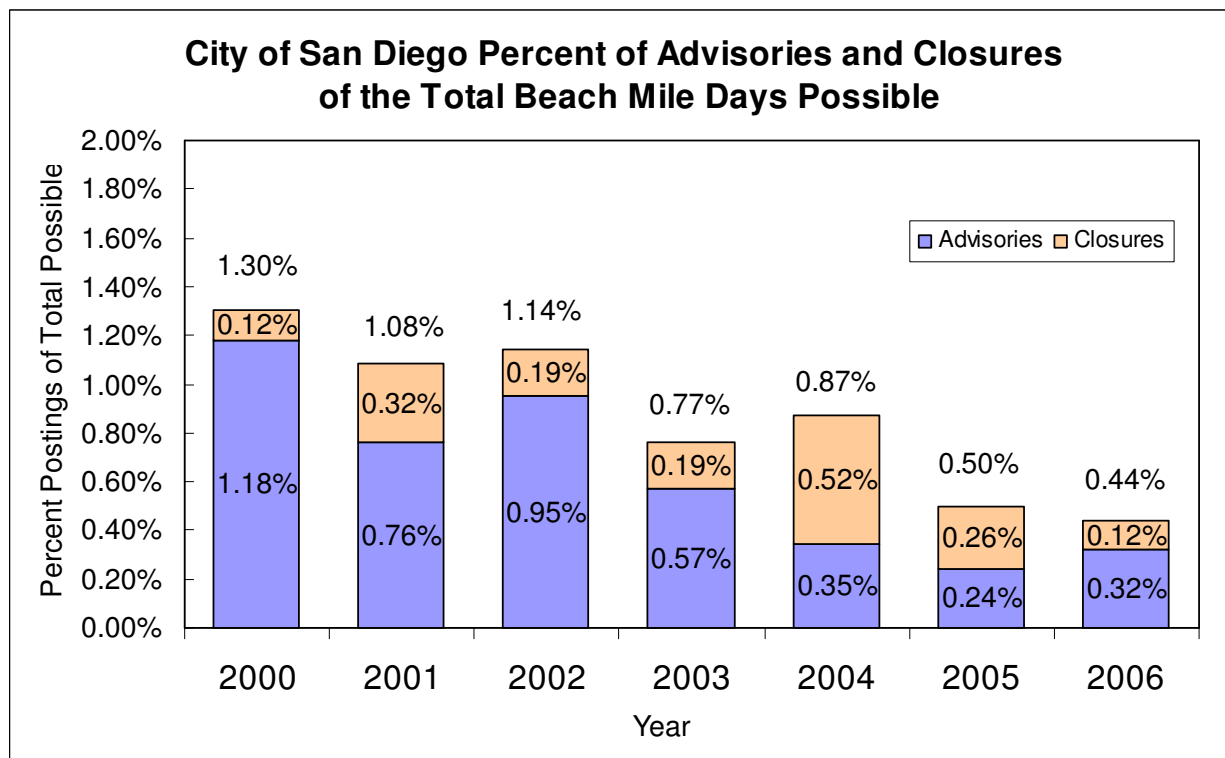


Figure 14-1. Percent of Beach Advisories and Closures as Compared to Total Beach Mile Days Possible.

The high variability of contributing factors to urban runoff monitoring, (e.g., geography, vegetation, duration and intensity of storm events, ambient environmental conditions, existing conditions of receiving waters, and wildlife, such as birds) makes it difficult to define typical storm water discharges, let alone develop standardized means of assessing their impacts. This variability in storm water monitoring data necessitates greater temporal and spatial breadth in data sets before they can be considered statistically significant. However, in some cases, it is

possible to identify quantities of pollutants removed from the storm drain system, changes in public awareness of storm water issues, and identify behavioral change by the public—all of which may be used to draw inferences regarding effective program implementation.

As another broad indicator of the overall effectiveness of the City's water quality protection efforts, specifically the Metropolitan Wastewater Department, the City continues to reduce the number of sewer spills from 365 spills in 2000 to 85 in 2007 (see Figure 14-2). Although root intrusions caused a slight increase in spill in FY 2007 compared to FY 2006, it can be assumed that the reduction in sewer spills throughout the years has resulted in reductions to the amount of sewage discharged into the region's waterbodies and that discharge quality has improved. To address the increase, MWWD televised sewer lines to check for issues such as root intrusions as part of their preventive maintenance program.

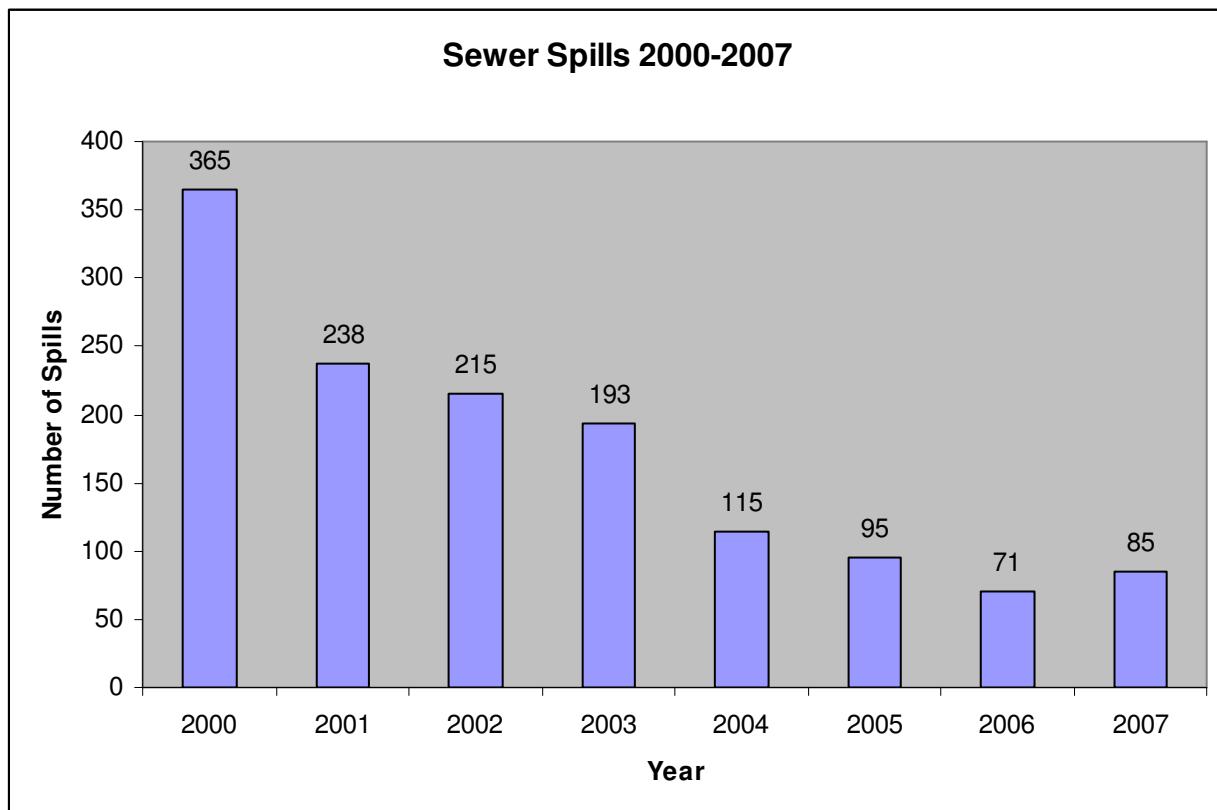


Figure 14-2. City of San Diego Sewer Spills from 2000 - 2006.

This program assessment concludes that the City is effectively implementing numerous activities that positively affect water quality in the San Diego region. Specific examples include:

- ✓ *The City's Think Blue education and outreach campaign continues to increase awareness of storm water pollution with residents and businesses. This was evident from the results of the City's survey which found that forty-six percent of residents say they have heard the slogan "Think Blue San Diego". The survey does include some possible evidence of the successful impact of past Think Blue activities: 53% of those who said they had heard about the Think Blue campaign*

knew that storm water is not treated, compared to 40% who had not heard about Think Blue.

- ✓ *The City continues to expand and maintain the low-flow diversion system to direct urban runoff during dry weather away from Mission Bay and other coastal areas to the wastewater treatment system.*
- ✓ *The City's pollution abatement efforts continue to identify and abate sources of pollution, as evidenced by the reductions in beach postings and closures over the last six years.*
- ✓ *The City's special monitoring studies have identified and characterized water quality issues, such as bacteria in Mission Bay, so that program efforts can be most effectively applied to sources of pollution.*
- ✓ *The City has obtained approximately \$11.8 million in grants and has contributed City funding to implement monitoring projects, special studies, habitat and wetlands improvement projects, cleanup events, and other BMPs all focused on protecting and improving water quality.*
- ✓ *The Development Services Department and the Engineering and Capital Projects Department continue to work collectively to oversee the development industry and ensure the City maintains storm water compliance at construction sites.*

14.3 ASSESSMENT OF PROGRAM COMPONENTS

14.3.1 Municipal

Table 14-1. Level 1: Compliance with Activity-Based Permit Requirements – Municipal.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.a.(5)	Inspect Storm Drain Structures	% Completion	100% (≈ 75,000)	15.2% (11,395)	21.6% (16,230)	17.3% (12,971)	21.4% (16,069)
F.3.a.(7)	Inspect Municipal Facilities*	% Completion	100% (540**)	98% (527)	162% (876)	114% (615)	100% (540)

* The number of inspections may fluctuate on a yearly basis due to changes in the prioritization of facilities.

**Excludes City-owned leased properties.

Table 14-2. Levels 1 and 4: Achievement of In-House Targets – Debris Removed Due to Storm Drain Inspections and Cleanings.

Applicable Permit Section	Activity*	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual
F.3.a.(5)	Clean Storm Drain	FY 2004 level (31,925 tons)	31,925 tons (100% of FY 2004 total)	9,816 tons (31%)	6,737 tons (21.1%)	26,635 tons (82.6%)

*Does not include debris removed from street sweeping.

Program Strengths

All high priority municipal sites as listed in the above table are inspected at least annually and often times more frequently. Additionally, most high priority facilities, including all operations yards, operate under a Storm Water Pollution Prevention Plan or a Water Quality Management Plan.

Municipal employees continue to be aware of the importance of storm water pollution prevention and the implementation of BMPs. They continue to implement BMPs throughout the course of their work as evidenced in the *Annual Reporting Forms* in Appendix B. For example, the Park and Recreation Department reduced trash loads by 48,100 tons through staff collection and contract programs in FY 2007; by maintaining the City's park and recreational facilities free from trash in a timely manner, especially after events, there is less chance for the trash to end up in the region's waterbodies. Also, the Environmental Services Department's Field Operations Division provided service to other departments/divisions, which resulted in 3,300 tons of trash and debris being diverted from the storm drain system and not loaded into local waterbodies. The services that were provided included bin service for sweepers, cleaning drains, cleaning right of ways, clearing transient camps, clearing unwanted vegetation, and clearing illegal dumps. Reducing trash and debris loads into the MS4 has contributed to protecting water quality.

The Street Division's procedures for cleaning the City's MS4 in FY 2007 resulted in approximately 9,816 tons of debris collected from storm drain structures and channels and 5,850 tons of debris collected through street sweeping for a total of 15,665 tons. The debris was collected prior to reaching the region's beaches and bays. *In response to Comment 12 of the RWQCB City of San Diego FY 2006 Annual Report Comment letter (Appendix A), the City received additional funding for FY 2008 that will help to increase the City's inspection efforts. Overall the City did remove more debris in FY 2007 than FY 2006. However, it is important to note that the maximum extent practicable (MEP) for inspection and cleaning of storm drain structures, drainage channels, and drainage pipe will vary in reporting periods based on variable factors including the amount of rainfall received and natural events, such as fires. Therefore, MEP cannot be defined solely by comparing the debris removed from one fiscal year to another. Furthermore, the total weight of debris removed from channels has been reduced dramatically over the past few years due to environmental requirements restricting channel cleaning operations. The City will continue to remove debris to the maximum extent practicable based on the above mentioned factors.*

In response to Comment 11 of the RWQCB City of San Diego FY2006 Annual Report Comment letter (Appendix A), the City confirms that in FY 2006 16,230 storm drain structures were inspected. The number of inspections noted in Section 3.3.1.2 of the Annual Report should have been 16,230 instead of 7,669.

Program Improvement Areas

Inter-departmental coordination was challenging for the City in FY 2007. As such, the City added two staff members to coordinate with City departments and ensure that program implementation is conducted appropriately. The City will also continue to study alternative funding sources, including an increase of the existing storm drain fee, to enhance its storm drain structure inspection and cleaning efforts in future fiscal years. Per the Mayor's 5-year financial outlook for the City, funds allocated towards water quality protection and improvement activities, including storm drain inspection and cleaning, are anticipated to increase (approximately an additional \$10 million is being included in the FY 2008 budget for storm water-related activities per the Mayor's direction). In the meantime, the City will continue to make the most of its current resources through prioritization, focusing on structures most in need of attention as identified.

14.3.2 Industrial

Table 14-3. Level 1: Compliance with Activity-Based Permit Requirements – Industrial.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.b.6	Inspect High Priority Industrial Facilities	% Inspected	100% (303)	100% (303)	100% (315)	100% (243)	100% (381)

Program Strengths

The Storm Water Division continues to use an environmental consultant/contractor to perform industrial inspections. In addition to the environmental consultant, inspections are performed by well-trained pretreatment inspectors within the City's Metropolitan Wastewater Department. The inspections are very thorough and include documentation on a field inspection sheet. In addition, the consultant/contractor continues to use a relational database to track inspections. This database is designed to allow Storm Water Division staff to evaluate inspections using GIS and to be able to relate abnormalities in dry weather monitoring data to industrial activity and industrial activity with code compliance enforcement activity. While this system is still under development and being improved, the database allows staff to inventory, prioritize, and manage the data needed to implement the Industrial Program and evaluate its effectiveness.

The Storm Water Division continues to improve its number of industrial site inspections. The number may vary from year to year due to industrial sites, for example, going out of business, moving to a different locale, or changing the manner that they conduct their activities in a way that alters their status as industrial facilities. In addition, the Storm Water Division and its consultant began to target sites for inspection suspected of being high priority sites but not subject to the State Industrial Permit. This activity has not only contributed to improving the City's inspection efforts of industrial sites but also to enhancing its complete list of prioritized industrial sites, which can be found in Appendix C-1.

Program Improvement Areas

The Storm Water Division will continue to improve its ability to identify those businesses that require coverage under the Industrial-Commercial Program for the 2007 Municipal Permit.

14.3.3 Commercial

Table 14-4. Level 1: Achievement of Activity-Based In-House Targets – Commercial.*

Applicable Permit Section	Activity	Measure of Success	Target**	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.c	Notify commercial business of storm water regulations	% completion	100% (100,000 business licensees)	76% (76,000)	45% (45,000)	11% (11,000)	11% (11,000)

* Tracking of this data was listed in previous Annual Reports as a Permit requirement.

** The City currently maintains a database of over 14,000 restaurants and over 2,500 other high priority businesses. Some of these businesses however may be considered industrial facilities.

NOTE: the numbers are approximations

Table 14-5. Level 1: Compliance with Activity-Based Permit Requirements - Commercial.

Applicable Permit Section	Activity	Measure of Success	Target*	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.3.c.	Inspect Commercial Facilities	% Completion	100% (3,000)	160.3% (5,063)	149.1% (4,473)	149% (4,469)	123% (3,703)

*The City currently maintains a database of over 14,000 restaurants and over 2,500 other high priority businesses. Some of these businesses however may be considered industrial facilities.

Program Strengths

Beginning in FY 2007, the Storm Water Division utilized an environmental consultant/contractor to perform commercial inspections. The consultant conducted a total of 254 full BMP assessments. In addition to the environmental consultant, inspections of food and drink establishments were performed by the Food Establishment Waste Discharge (FEWD) Program within the MWWDD, which continues to be the backbone of the Commercial Program of the City. This program is staffed by inspectors formally trained to conduct storm water inspections in and around eating and drinking establishments. During the course of their inspections, they educate owners, managers, and workers on relevant storm water pollution prevention principles and distribute appropriate educational materials. FEWD is able to reach approximately 4,500 establishments annually (4,809 in FY 2007), which is approximately 32.1% of the eating and drinking establishments within the City (approximately 14,000).

FEWD also coordinated with the Storm Water Division in abating illegal discharges from such facilities. Code Compliance Officers from the Storm Water Division investigate referrals by FEWD (36 in FY 2007), and many of these investigations result in enforcement actions.

In addition to FEWD, the City's Commercial Program continued to be strong in the area of reports through the Storm Water Pollution Prevention Hotline and other means of communication (e.g., website, main office line, fax). The Storm Water Division received many reports through these means regarding commercial facilities illegally discharging into the storm water conveyance system, which were investigated and abated through the issuance of Notices of Violation, Administrative Citations, Civil Penalties, and, in extreme cases, criminal prosecution by the Office of the City Attorney. The City holds that such actions contribute significantly to the enforcement of the Storm Water Ordinance and the education of commercial facility operators regarding storm water pollution prevention.

Program Improvement Areas

While these inspections address the primary potential commercial sources of storm water pollution, in future years, the Storm Water Division will continue to improve efforts to expand the Industrial-Commercial inspection inventory.

14.3.4 Residential

Table 14-6. Levels 1 and 4: Achievement of Activity-Based In-House Targets – Residential.*

Activity	Measure of Success	Target*	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
HHW Collection	% completion	100% of FY 03 total (1,043 tons)	567.0% (5914 tons)	533.9% (5,569 tons)	105% 1,093 tons*	103% 1,071 tons

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The Environmental Services Department's Household Hazardous Waste (HHW) Program continued to do well in the investigation, maintenance, collection, and remediation of hazardous substances, including HHW from facilities, residents, vacant land, and other City departments. The collection program consists of a permanent HHW facility, auto product recycling events, door-to-door collection, and a load check point at the Miramar Landfill. Aside from the benefit of reducing loads by collecting over 5,914 tons of hazardous waste in FY 2007, this program helped protect water quality because a large component of the HHW Program is conducting education and outreach to inform residents on the proper use and disposal of hazardous materials. One inference that can be made regarding the rise in the number of tons of HHW collected over the years is that residents are changing their behavior to be more environmentally/storm water-friendly based on their heightened awareness as a result of City efforts.

Also in FY 2007, City Code Compliance Officers investigated 73 reports of illegal discharge into the storm water conveyance system in residential areas. Many of these investigations resulted in enforcement actions and also provided opportunities to educate members of the public.

The City continues to successfully reach out to residents and educating them (e.g., through water/sewer bill mailings sent to approximately 540,000 residential and commercial customers, 2006 Annual Drinking Water Quality Report mailed to 570,204 residential and commercial customers in the City of San Diego) about the importance of implementing storm water pollution prevention principles to protect the region's beaches, bays, rivers, and lagoons.

Program Improvement Areas

The City will continue to work to improve the tracking of enforcement actions at residential sites. The Storm Water Division will also continue to improve its enforcement database in light of the re-issuance of the Municipal Permit and anticipated coordination with the other Copermittees to establish regional effectiveness assessment standards for cross-jurisdictional and cross-programmatic (e.g., JURMP, WURMP, and RURMP) analyses.

14.3.5 Land Use Planning

Table 14-7. Level 1: Compliance with Activity-Based Permit Requirements – Land Use Planning.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.1.b	Apply SUSMP requirements to applicable development	% completed	100% (239 projects)	100% (239 projects)	100% (266 projects)*	100% (302 projects)	100% (378 projects)

*This number is assumed to be consistent with the number of projects that were reviewed for SUSMP requirements since all applicable projects must be reviewed for compliance prior to permit approval.

Program Strengths

The Community Planning and Investment Department continued to refine the General Plan Update document for anticipated adoption by the City Council in Fall 2007. The Conservation; Mobility; Urban Design; Public Facilities, Service, and Safety; and Recreation elements of the draft General Plan Update include language on water quality and watershed protection principles to help guide the City and development community in protecting the region's water resources.

In addition, as community plans are updated throughout the City, water quality and watershed protection principles continued to be incorporated into them, as exhibited by the updates to the Ocean Beach and Mission Valley community plans currently underway.

The City's *Storm Water Standards Manual*, which requires permanent (SUSMP) BMPs and construction BMPs on all applicable development projects, continued to be applied to all public and private development projects. In FY 2007, 212 private projects and 27 CIP projects were considered Priority Projects under the Model SUSMP, and were required to incorporate treatment control BMPs, as required by the *Storm Water Standards Manual*. Each of these projects implemented permanent BMPs in their project design to address receiving water quality. Assuming that these BMPs performed with some degree of effectiveness, it can also be inferred that the City's requirement to implement development-related BMPs is having some positive effect on the discharge and receiving water quality in the region in FY 2007.

Development Services Department staff performing review of permanent BMPs on private projects also continued to undergo periodic training and were involved in biweekly discussions involving storm water requirements for development. An educated City force aware of storm water issues and pollution prevention issues helps ensure that development proposals take into consideration water quality.

In addition, it is reasonable to infer that the City's continued efforts to educate its labor force and the public on storm water pollution prevention principles and enforce its Storm Water Ordinance and land use plans have resulted in a higher level of awareness of storm water pollution, which, in turn, have led to increased BMP implementation throughout its jurisdiction and beyond.

Program Improvement Areas

The Storm Water Division will continue the training of City staff responsible for implementation of SUSMP requirements on both public and private projects. It is anticipated that work on updating the City's *Storm Water Standards Manual* will be finalized in FY 2008 in light of the re-issuance of the Municipal Permit and in coordination with the other Copermittees. During the 2007 Municipal Permit cycle the City will be inspecting treatment control BMPs to better estimate their effectiveness and potentially estimating load reductions.

14.3.6 Construction

Table 14-8. Level 1: Compliance with Activity-Based Permit Requirements – Construction.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.2.g	Inspect high priority construction sites	% completion	100% (148)	100% (148)	100% (180)	100% (129)	100% (69)
F.2.g	Inspect medium/low priority construction sites	% completion	100% (1,012)	100% (1,012)	100% (919)	100% (800)	100% (759)

Program Strengths

The City continues to be successful in tracking and inspecting all private and CIP construction projects. BMPs are required and being enforced for all construction projects consistent with the requirements of the City's *Storm Water Standards Manual*.

Program Improvement Areas

Trainings and meetings focusing on site erosion and sediment controls will continue to be conducted for Inspection Services Division staff in the Development Services Department and Field Engineering Division staff in the Engineering & Capital Projects Department.

Although the Inspection Services Division and Field Engineering Division have effective programs in place to ensure all job sites are inspected and tracked, the City generally lacks software and data management tools designed to capture data for reporting purposes. Staff members from Inspection Services Division are currently coordinating to determine the processes and procedures necessary to assign, track, and report on the priority level of each building permit issued. Staff will then modify the City's Project Tracking System to enable the active tracking and scheduling of inspections (both routine ones and follow-ups) based on priority level and the rainy/dry seasons. The Development Services Department Inspection Services Division anticipates implementing these actions by January 2008. This will be an area for continued improvement in future years, and, in light of the re-issuance of the Municipal Permit, the City anticipates coordinating with the other Copermittees to formulate regional data standards to allow for cross-jurisdictional and cross-programmatic analyses and effectiveness assessment.

14.3.7 Monitoring

Table 14-9. Level 1: Compliance with Activity-Based Permit Requirements – Monitoring.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Attachment B(c)	Coastal site visits	% Completed	100% (357)	100% (357)	100% (357)	100% (357)	100% (323)
Attachment E(4)	Monitor dry weather sites	% Completed	100% (308)	100% (302*)	100% (306*)	100% (311)	98% (293)
Attachment E(4)	Conduct follow-ups on DWM exceedances	% Completed	100% (113)	227% (256)	100% (113)	100% (113)	data unavailable

*Number of sites can vary each year as new sites are identified or old ones are abandoned.

Program Strengths

In FY 2007, Storm Water Division staff performed monitoring at 302 sites within the storm water conveyance system as part of the Dry Weather Monitoring Program. This program provides thorough coverage of the six watershed areas within the jurisdiction of the City. Dry weather monitoring data are stored in a spreadsheet, which allows for limited GIS mapping. This data storage method has allowed Storm Water Division staff to perform limited statistical analysis in order to refine investigational triggers and identify areas that need further investigation.

The Storm Water Division's monitoring staff continues to implement the Coastal Storm Drain Monitoring Program as scheduled.

Program Improvement Areas

The Storm Water Division will continue to work on being able to collect and provide its monitoring data in a new database format that would allow for greater GIS mapping and analysis and statistical capabilities.

14.3.8 Enforcement

Table 14-10. Level 1: Compliance with Activity-Based Permit Requirements – Enforcement.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.5.c	Investigate identified illicit discharges	% Completed	100%	100% (1,964)	100% (1,531)	100% (1,659)	100% (1,694)

Program Strengths

The Investigations and Enforcements Section of the Storm Water Division continued to be efficient in conducting investigations and issuing the appropriate enforcement actions. Appendix F provides a record of the investigations performed by the Code Compliance Officers in FY 2007. Note that every single reported discharge reported to the Storm Water Division was investigated. In FY 2007, 880 notices of violations, 456 administrative citations, 157 civil penalties were issued, and \$200,546.17 in fines were assessed. Code Compliance Officers also continue to do well in educating violators about the importance of storm water pollution prevention through educational materials (*Think Blue* fact sheets) that they handed out and the numerous interactions (both face to face and via the telephone) that they had with the public throughout the course of their duties.

Program Improvement Areas

The Investigations and Enforcements Section has initiated the process to develop a division-wide database to further facilitate the tracking and analysis of investigations and enforcement actions. A beta version of the database is anticipated in the summer 2008. In addition, the Division is requesting one additional officer in FY 2009 to ensure that cases are investigated within two business days.

14.3.9 Illicit Discharge Detection and Elimination

Table 14-11. Level 1: Compliance with Activity-Based Permit Requirements – IDDEC.

Applicable Permit Section	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.5.c	Investigate potential illicit discharges	% Completed	100% (211)	100% (211)	100% (214)	35% (48)	45% (47)
F.5.d	Eliminate discharges	% Completed	100% (56)	100% (56)	89% (84)	25% (33)	45% (47)

Program Strengths

Storm Water Division staff worked successfully in FY 2007 to increase the rate of investigations successfully completed. Staff improved its tracking of investigations and was able to document not only an increase in the number of discharges investigated, but also a significant increase in

the number of discharges eliminated. Of the 38 instances in which an illicit discharge was detected, only 5 cases resulted in no responsible party identified. The majority of the 38 illicit discharges resulted in appropriate enforcement action, ranging from the distribution of educational materials to the levying of civil penalties. It can be inferred that, because progress is being made towards the identification and elimination of illicit discharges, discharge water quality is improving in the City.

Program Improvement Areas

In light of the expanded Dry Weather Monitoring Program outlined in the 2007 Municipal Permit, the Storm Water Division will seek sufficient resources to meet the expanded Dry Weather Monitoring Program required by the new Municipal Permit.

14.3.10 Education

Table 14-12. Level 1: Compliance with Activity-Based Permit Requirements – Education.

Applicable Permit Section	Activity	Measure of Success	Target*	FY 2007 Actual**	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.4	Conduct outreach	% completion	100% of 2003 number of 89	3.4% (3)	26.7% (24)	Unknown. Outreach tracking was disrupted in FY 2005 on into FY 2006	55% (49)

* The target was established near the beginning of Order 2001-01 JURMP implementation. Program implementation has evolved and improved since then. Specifically, as the education program has become more sophisticated, we have learned that we can reach much larger audiences more effectively by focusing staff and resources on large events (such as Padres games and mass media), rather than numerous relatively minor community and neighborhood events reaching far fewer people. The City has therefore developed modified assessment measures which will be included in the revised JURMP under Order 2007-0001.

** Most of the City's outreach activities are watershed focused and are reported in the City's WURMP Annual Reports.

Table 14-13. Level 1: Achievement of Activity-Based In-House Targets – Education.*

Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
Distribute educational materials	% completion	100% of 2003 amount of 48,725	311% (151,550)	1,213.6% (591,346)	Unknown. Materials distribution was not tracked in FY 2005.	316.% (154,390)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

The Storm Water Division continued to implement an education and outreach program targeted for both City staff and external target audiences, including residential, business, industry, construction and children. The City's *Think Blue* campaign consisted of commercials, public service announcement development and airing, a website, training, and educational material development and distribution to educate the public about storm water and urban runoff pollution prevention including the use of billboards and transit shelters. While the City still conducted jurisdictional outreach, it is important to note that many of the City's outreach events were watershed focused and as such are included in the City's WURMP Annual Reports. This will be a continuing trend as the City's outreach events become more area and watershed specific.

During FY 2007 the Storm Water Division focused efforts on airing PSAs and contracting for paid television and radio advertising. The City focused on PSAs as an effective method for relaying pollution prevention information to a large audience. The City's PSAs aired on both local radio and television stations in FY 2007 reaching the English- and Spanish-speaking communities. The PSAs aired 7,269 times and made approximately 18,546,166 impressions.

The 2007 telephone survey results indicate that behavioral change continued to progress in a positive direction as a result of the City's efforts to educate the public and its labor force on storm water pollution prevention principles and enforce its Storm Water Ordinance. The survey shows deep interest in and concern about storm water pollution among San Diego residents. More than three of four say that pollution of the ocean, bay, and beaches is a very important issue facing the city, matching concern about the quality of public schools. The survey also showed that most residents indicate a willingness to take actions to help prevent storm water pollution, especially keeping trash and recycling bins covered to prevent litter, recycling used motor oil, washing paint brushes properly, sweeping rather than hosing down sidewalks, picking up litter and trash, and fixing sprinklers. Between 61% and 85% of residents rated their willingness to take these actions as a 10 on a 1 to 10 scale. It was also found that about 45% of residents indicate strong interest in learning more about what they can do to reduce storm water pollution and beach closures due to pollution, and to reduce litter and pollution in their neighborhoods.

The survey found that 46% of residents say they have heard the slogan "Think Blue San Diego". The survey does include some possible evidence of the successful impact of past Think Blue activities: 53% of those who said they had heard about the Think Blue campaign knew that storm water is not treated, compared to 40% that knew storm water was treated but who had not heard about Think Blue.

The Think Blue web site (<http://www.ThinkBlueSD.org>) available to the public and professional organizations continues to be a valuable compliance and educational resource. In FY 2007, the City Storm Water Division website reports approximately 52,678 hits. The site includes all of the campaign's informational fact sheets, brochures, the City's Urban Runoff Management Plan, the Storm Water Ordinance (Section 43.03 of the San Diego City Municipal Code), information on the Chollas Creek Environmental Improvement and Awareness Programs, Project SWELL, a calendar of upcoming storm water events and outreach activities, the PSAs, and other educational videos. In FY 2007, a document review section was added to allow other City staff and the public to obtain and comment on reports, plans, and other documents. A large portion of the site is available to browsers in both the English and Spanish languages.

Other departments and divisions continued to conduct education and outreach to employees and target audiences. Departments continued to provide staff with general and activity-specific storm water training. Additionally, many departments have created and distributed a large number of storm water educational materials and advertisements and have conducted workshops and outreach programs as both internal and external education measures. These activities demonstrate the level of storm water awareness achieved by the City among its employees, which inevitably translate into greater education and outreach efforts towards the public.

Program Improvement Areas

In FY 2007, the Storm Water Division realized an increase in contacts from FY 2006 (see Table 14-14). While the declining contact volume for FY 2005 and FY 2006 coincides with two consecutive years of decreased advertising for Think Blue, FY 2007 saw a funding increase and an increase in contact volume.

Table 14-14. Level 2: FY 2002 through FY 2007 Contacts Received*.

Fiscal Year	Total Contacts	Water Quality Contacts	Other (e.g., Information, Wrong Number, etc.)
2002	2,904		
2003	4,206		
2004	4,695		
2005	3,818	1,659	2,159
2006	1,902	1,531	371
2007	2,158	1,851	307

*This table was presented in previous Annual Reports as only including contacts made through the Storm Water Pollution Prevention Hotline.

The City will continue to expand its education and outreach programs to more effectively reach target audiences and affect behavioral change. Specific areas for improvement include:

- Reestablishing annual residential behavior data gathering and assessment activities;
- Reestablishing a mass media campaign;
- Focusing all jurisdictional education and outreach activities around the pollutants of concern identified for each watershed within the City's jurisdiction;
- Implement an outreach and education methodology that uses a social psychology approach that will maximize the City's efforts to achieve sustainable behavior changes in all target audiences as identified in the Municipal Permit and to perform Level 3 assessment;
- Strengthening the municipal training program; and
- Working collaboratively with other jurisdictions to address mobile businesses as a high priority pollution source.

In response to Comment 13 of the RWQCB City of San Diego FY 2006 Annual Report Comment letter (Appendix A), the City is taking steps to improve its education efforts. While education funding and staff had been reduced in FY 2006, there was increased funding for FY 2007 along with a greater funding increase for FY 2008. In addition, two new employees and a professional consultant were hired in FY 2007 to assist with education program. Furthermore, the Storm Water Division will be hiring approximately twelve consultants to assist with the education program in FY 2008 and beyond.

14.3.11 Public Participation

Table 14-15. Level 1: Achievement of Activity-Based In-House Targets – Public Participation.*

Applicable Permit Requirement	Activity	Measure of Success	Target	FY 2007 Actual	FY 2006 Actual	FY 2005 Actual	FY 2004 Actual
F.6	Events allowing the public to participate	# Conducted	500	395 (79%)	423 (85%)	488 (98%)	629 (129%)

*Tracking of this data was listed in previous Annual Reports as a Permit requirement.

Program Strengths

Departments and divisions throughout the City have provided opportunities for public involvement and have implemented measures to solicit public input related to storm water issues. Some of these efforts include, but are not limited to, workgroup meetings, several Citywide hotlines to take public comments and questions, volunteer programs and events, community and council meetings, fairs, presentations, and workshops.

Non-governmental organizations continued to be actively engaged in implementing the City's storm water program. For example, San Diego Coastkeeper continued to be a key partner in developing Project SWELL, the City's storm water education program for grade-school students, and providing valuable input on its conceptual BMP projects in the City's watersheds and along the La Jolla Shores Area of Special Biological Significance (ASBS).

Program Improvement Areas

The City will continue to actively pursue public participation activities to allow public input on and participation in storm water issues and policies. As mentioned previously, the Storm Water Division posts reports and documents on the Thinkblue website for public review and comment. The City will also continue to involve non-profit organizations, such as San Diego Coastkeeper, in the development of water quality activities.

15 FISCAL ANALYSIS

The Fiscal Analysis component was developed to identify costs associated with the JURMP for the entire City. Implementation of the Municipal Storm Water Permit requirements on a City-wide basis were projected (in FY 2001) to cost as follows:

Table 15-1. City's 2001 estimate of implementation costs for Order No. 2001-01.

Permit Year/Budget Permit	Cost*
1. July 1, 2001 – June 30, 2002	\$27,254,833
2. July 1, 2002 – June 30, 2003	\$55,828,016
3. July 1, 2003 – June 30, 2004	\$49,421,368
4. July 1, 2004 – June 30, 2005	\$50,678,255
5. July 1, 2005 – June 30, 2006	\$52,928,582
Total Five-Year Cost	\$236,111,054

*Estimated costs only. Actual yearly expenditures.

15.1 FISCAL ASSESSMENT

For Fiscal Year 2007, the City's actual City-wide expenditures for implementation of the Municipal Storm Water Permit requirements consisted of components that followed the sections in the JURMP (Figure 15-1).

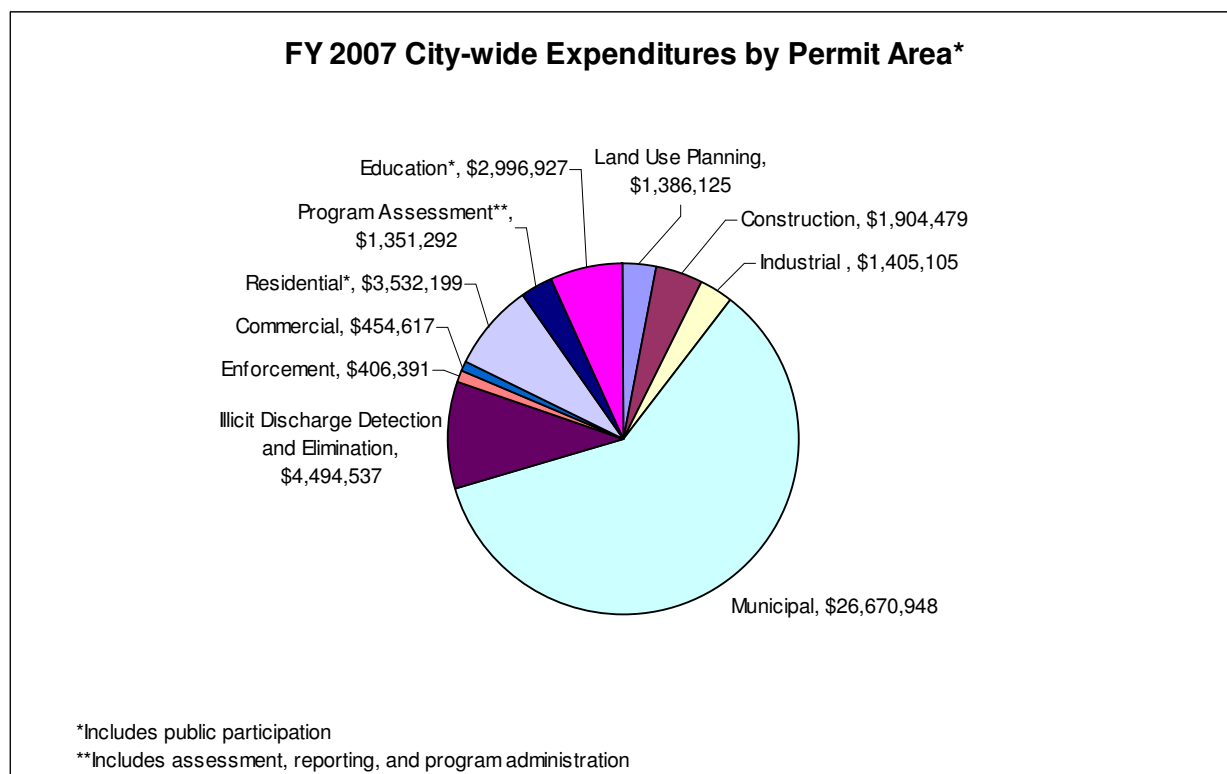


Figure 15-1. FY 2007 City-wide Expenditures by Permit Area

A total of \$44,602,619 was actually expended in FY 2007 for the implementation of City-wide JURMP activities. This amount includes costs paid by sewer and water rate payers and costs reimbursed by project applicants. An overview of the expenditures reflected in these components is described below.

Explanations:

Land Use Planning

Activities identified in the Land Use Planning for New Development Section represent personnel and non-personnel expenses for plan check reviews, project design and SUSMP implementation, General Plan updates, and development and management of watershed plans.

Construction

Activities identified in this section represent personnel and non-personnel expenses for plan check review services, field inspections related to grading permits, public improvements, and building activities.

Municipal

Activities identified in this section represent personnel and non-personnel expenses for street sweeping, storm drain and channel maintenance, BMP implementation, and housekeeping (i.e., debris disposal and dry clean up methods).

Industrial

Activities identified in this section represent personnel and non-personnel expenses for inspection of industrial facilities.

Commercial

Activities identified in this section represent personnel and non-personnel expenses for Food Establishment Wastewater Discharge (FEWD) inspections.

Enforcement

Activities identified in this section represent personnel and non-personnel expenses for enforcing the City's storm water ordinance and implementation of the administrative civil penalties and citation process.

Residential

Activities identified in this section represent community clean up activities and educational activities.

Education and Public Participation

Activities identified in this section represent personnel and non-personnel expenses for training, educational materials, outreach events, and public service announcements.

Illicit Discharge Detection and Elimination

Activities identified in this section represent personnel and non-personnel expenses for the identification and elimination of illicit discharges.

Program Assessment

Activities identified in this section represent personnel and non-personnel expenses for City-wide management, reporting, and assessment of the Municipal Permit.

15.2 GRANTS AND OTHER FUNDING FOR SPECIAL STUDIES

In addition to resources identified for Municipal Permit requirements, the City actively seeks grants and other funding sources for special studies and capital projects. Funding for these projects are limited to the projects specified and cannot be reallocated to other projects. Therefore, these resources are currently not used in calculations for total expenditures. The following table lists projects that were initiated and/or in progress during FY 2007. The City managed a total of approximately \$11.8 million in special projects during FY 2007.

Table 15-2. Funding for Special Projects.

<i>Funding Source</i>	<i>Project</i>	<i>Amount</i>
Proposition 13, Clean Beaches Initiative Grant	San Diego River–Ocean Beach Water Quality Improvement	\$1.5 million
Proposition 13, Clean Beaches Initiative Grant	Mission Bay Computerized Central Irrigation System	\$1.1 million
Proposition 13	San Diego Watershed Common Ground Project	\$0.9 million
Proposition 13	Chollas Creek Water Quality Protection and Habitat Enhancement Project	\$2.2 million
California State Appropriations	Rose and Tecolote Creeks Water Quality Improvement	\$2.0 million
Proposition 50	Areas of Special Biological Significance Project Planning	\$0.5 million
Proposition 50	Areas of Special Biological Significance Dry Weather Flow and Pollution Control Program	\$3.6 million
Total Grant Funding		\$11.8 million

15.3 FUNDING SOURCES

City-wide implementation of Municipal Permit requirements is funded through four main types of governmental funds: the General Fund, Special Revenue Funds, Enterprise Funds, and Internal Service Funds.

General Fund

The General Fund is the general operating fund for the City.

Enterprise Funds

Enterprise Funds are initiated for specific purposes and funded through fees for services. This funding type is designated for the operations, management, maintenance, and development of the department providing the service. For implementation of City-wide JURMP activities, activities are funded through the following enterprise funds:

- Airports Fund
- Development Services Enterprise Fund
- Recycling Fund
- Refuse Disposal Fund

- Sewer Revenue Funds
- Water Utility Fund
- Storm Water Fee

Internal Service Funds

Internal Service Funds are similar to Enterprise funds, in which fees are paid for services, but customers are usually other City departments. For implementation of City-wide JURMP activities, activities are funded through the following internal service funds:

- Engineering and Capital Projects Fund
- Equipment Division Funds

15.4 FUTURE PROJECTIONS

As mentioned before, City-wide expenditures are primarily funded through the General and non-General funds. One source of enterprise fund revenue is the Storm Water fee, which funds a portion of the City's storm drain maintenance activities, drainage capital projects, and efforts to reduce pollutants in the storm water. Annual revenue projections remain at approximately \$6 million. To supplement this revenue, other funding options are being explored, including a possible increase of the existing storm drain fee discussed below.

In light of new Municipal Permit requirements, City-wide JURMP expenditures are projected to rise. The estimated Storm Water Pollution Prevention Division and Streets Division budget for FY 2008 is approximately \$36 million. In anticipation of the new Municipal Permit requirements, as of the writing of this report other city-wide expenditures are being developed and will be included in the updated JURMP. Departments will continue to work diligently to prioritize and stretch the dollars that they have to effectively implement their components of the JURMP.

Alternative Storm Water Funding Study

In FY 2007, the City continued to study alternative sources of funding, including a possible increase of the existing storm drain fee, to support activities pursuant to the City's Municipal Permit as well as other regulatory programs (Total Maximum Daily Loads, Areas of Special Biological Significance, and Cleanup and Abatement Orders). The City is studying the implications of such alternative funding sources and the benefits and challenges of implementation.

It is anticipated that such funding will enable the City to take a more integrated approach in addressing the requirements of the various water quality regulatory programs through comprehensive watershed-based planning, monitoring/data tracking, significant investments in the City's infrastructure (e.g., storm drains), investments in urban runoff-related programs (e.g., street sweeping), updates to the City's development regulations, enhanced enforcement, and greater education and outreach efforts.

16 SPECIAL PROJECTS

This section identifies and describes the City's completed, ongoing, and planned special projects and grants that are designed to examine and/or improve water quality or habitat conditions in the San Diego region.

16.1 BACTERIA IMPAIRED WATERS TMDL PROJECT 1 FOR BEACHES AND CREEKS

In 1998, numerous coastal beaches were placed on the 303(d) as impaired for bacteria indicators. As a result of this action, the Regional Board coordinated with a consultant to develop a technical report of the bacteria impaired beaches and creeks in the boundaries of the San Diego Regional Water Quality Control Board Region 9. The City was designated as the Stakeholder Advisory Group (SAG) representative and continued in this role throughout FY 07.

During FY 2007, the Regional Board released revised draft technical reports on August 4, 2006 and March 9, 2007. The City reviewed the draft technical reports and provided comment letters on February 3, 2006 and September 18, 2006. In late FY 2007, the Regional Board released a revised draft technical report that included models, load duration curves, and additional data. The City will be reviewing the draft technical report, providing comments, and attending meetings, as appropriate in FY 2008.

16.2 DRAFT INVESTIGATION ORDER NO. R9-2005-0216 FOR THE DISCHARGE OF BACTERIA, NUTRIENTS AND SEDIMENTS INTO IMPAIRED LAGOONS AND ADJACENT BEACHES AND CREEKS

Within the City of San Diego, Famosa Slough and Los Penasquitos Lagoon were identified for the development of TMDLs. Activities will continue during the next reporting period. In November 2006 Southern California Coastal Water Research Project (SCCWRP) was invited to review the draft technical report and prepare a workplan for all seven lagoons identified by the Tentative order. Meetings were held with responsible parties to develop a comprehensive and consistent workplan. The final workplan was developed in June 2007 and responsible parties allocated work, by watershed, to consultants for implementation. Work is due to commence in October 2007 with both wet and dry weather monitoring as well as sediment sampling and index period sampling.

16.3 CLEANUP & ABATEMENT ORDER NO. R9-2005-0126 FOR THE SAN DIEGO BAY SHIPYARDS CONTAMINATED SEDIMENTS

On April 29, 2005, the City and other organizations received a Tentative Cleanup and Abatement Order (CAO) from the Regional Board with regards to contaminated marine sediments in San Diego Bay at the Shipyard Sediment Site. The CAO states that the City has caused or permitted the discharge of urban storm water pollutants through Municipal Separate Storm Sewer Systems (MS4) and Chollas Creek. Storm water is discharged from the MS4 at SW4 (Southwest Marine, Inc., leasehold), SW9 (NASSCO leasehold) and Chollas Creek and may contribute to the accumulation of pollutants in the marine sediments at the Shipyard Sediment Site. The CAO requires the City and other organizations to eliminate the effects of sediment contamination (metals, total suspended solids, petroleum products, and synthetic organics) to aquatic life in San Diego Bay.

The City is awaiting the release of the draft Technical Report supporting the Cleanup and Abatement Order recommendations to provide comments. A revised draft Cleanup and Abatement order is expected August or September 2007. The City will continue its participation by attending necessary meetings and providing input and comments as appropriate.

16.4 WATERSHED URBAN RUNOFF MANAGEMENT PROGRAM ANNUAL REPORTS SPECIAL PROJECTS

Below is a summary of some of the City of San Diego's special projects contained in the City's FY 2007 Watershed Urban Runoff Management Program (WURMP) Annual Reports.

Special Projects discussed in the San Dieguito WURMP Annual Report:

- San Dieguito Watershed Management Plan
- San Dieguito River Watershed Targeted Restaurant Inspections
- San Dieguito River Watershed Rain Barrel/Rain Harvesting
- San Dieguito River Watershed Restaurant BMP Booklet

Special Projects discussed in the Los Peñasquitos WURMP Annual Report:

- ALPHA Project for the Homeless, Inc. Cleanup Sponsorship
- Los Peñasquitos Creek Watershed Erosion and Sediment Control Poster
- Integrated Regional Water Management Plan Preparation Participation
- Los Peñasquitos Watershed Targeted Animal Facility Inspections

Special Projects discussed in the Mission Bay and La Jolla WURMP Annual Report:

- Areas of Special Biological Significance Nos. 29 and 31 – Integrated Coastal Watershed Management Plan
- Beach Area Low Flow Storm Drain Diversion Project, Phase III
- Aggressive Street Sweeping Program
- Kellogg Park Green Lot Retrofit Project – La Jolla Shores Watershed – Mission Bay Watershed Management Area
- Mount Abernathy "GreenStreet" Retrofit – Tecolote Creek – Mission Bay
- Rose and Tecolote Creeks Water Quality Improvement Project
- Mission Bay and Coastal Beaches Sewage Interceptor System Upgrades
- Pacific Beach Point Bacterial Sources Identification
- Rose Creek Watershed Opportunities Assessment
- South Shore Recreational Vehicle Pumpout
- Genessee and Balboa Avenues Community Based Social Marketing Outreach Pilot Project
- Mission Bay Central Computerized Irrigation System

Special Projects discussed in the San Diego River WURMP Annual Report:

- San Diego River Restoration Project
- Clean Beaches Initiative Grant: San Diego River – Ocean Beach Water Quality Improvement Project, Phase II
- San Diego River Watershed Boundary Signs

- San Diego River Park Master Plan

Special Projects discussed in the San Diego Bay WURMP Annual Report:

- San Diego River Restoration Project
- Dry Weather Aerial Deposition Study
- Chollas Creek Diazinon TMDL
- Chollas Creek Dissolved Metals TMDL
- Chollas Creek Enhancement Program
- Chollas Creek Integrated Pest Management Program (Proposition 13 Pesticide Research and Identification of Source and Mitigation Grant)
- Chollas Creek TMDL Source Loading Assessment, BMP Evaluation, and Recommended Monitoring Strategy
- Chollas Creek Water Quality Protection & Habitat Enhancement Project
- Chollas Creek Watershed Street Sweeping Phase I
- Chollas-Paletta-Switzer Creek Mouths TMDL
- Dalbergia and Thor Streets "Green Mall" Retrofit and Memorial Park Dual-Use Infiltration/Bioretenion Retro-fit Projects – Chollas Creek Watershed
- Trash Containment Boom Cleaning Agreement with United States Navy
- San Diego Watersheds Common Ground: San Diego Bay Watershed Demonstration Project

Special Projects discussed in the Tijuana River WURMP Annual Report:

- San Diego River Restoration Project
- Tijuana Targeted Inspections
- Tijuana River Watershed Pesticide-Herbicide Guide Brochure

16.5 ADDITIONAL WATERSHED ACTIVITIES

Additional watershed activities that are planned for implementation in FY 2008 and beyond are described in the appropriate watershed urban runoff management plans and will be reported in the WURMP annual reports. Additional watershed activities will be implemented to meet the requirements of the 2007 Municipal Permit with funds from past awarded grants and other sources.

17 CONCLUSIONS AND PROGRAM AMENDMENTS

17.1 SUCCESSES AND CHALLENGES

Urban runoff discharged from municipal storm water conveyance systems has been identified by local, regional, and national research programs as one of the principal causes of water quality problems in most urban areas. The City's storm water conveyance system, which collects runoff from streets, rooftops, driveways, parking lots, and other impervious areas, flows directly to beaches and bays without receiving treatment. Through the hard work of the Storm Water Division and other City staff, there has been a reduction in the percentage of beach advisories and closures per total beach mile days possible over the last six years (see Figure 17-1). In addition to reducing beach postings, the City has also reduced the number of sewage spills between FY 2000 and FY 2007 (see Figure 17-2).

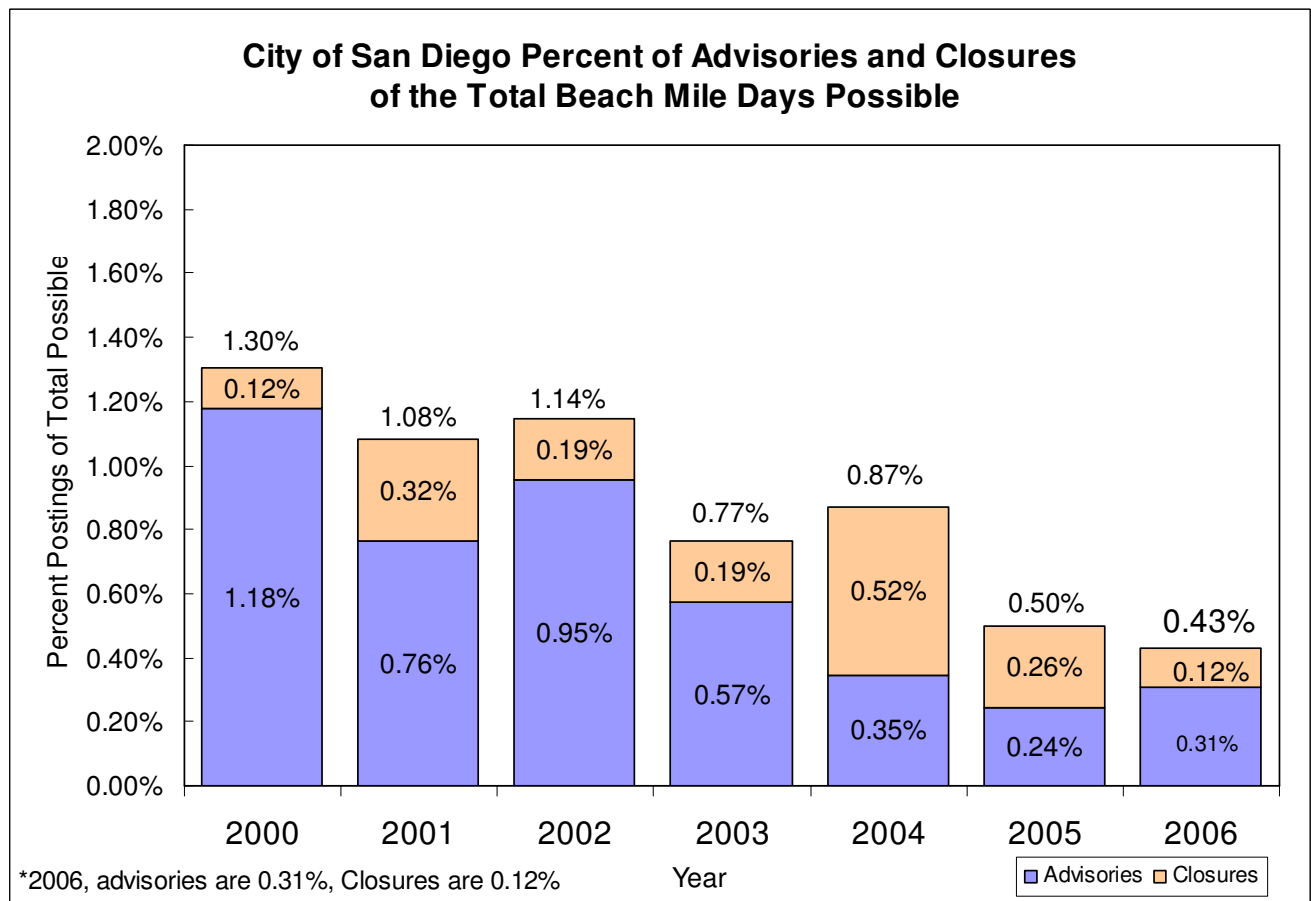


Figure 17-1. Beach Posting and Closures in City of San Diego Between FY 2000 and FY 2007.

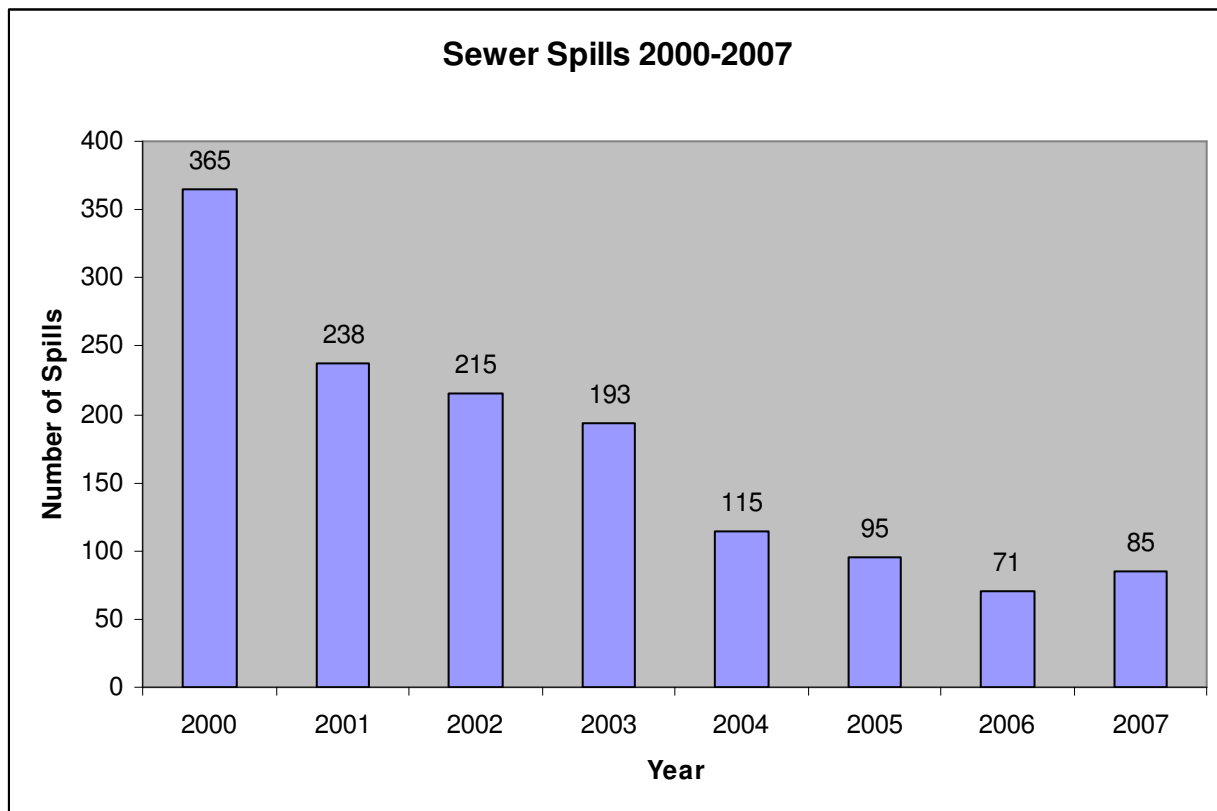


Figure 17-2. Number of Sewer Spills in City of San Diego between FY 2000 and FY 2007.

17.1.1 Successes

The City's Storm Water Division annual budget was increased in FY 2007 to \$13.5 million from its FY 2006 budget of approximately \$2.3 million. The City's Storm Water Division achieved significant benefits to water quality beyond its budget by leveraging special projects. Specifically, the City received approximately \$11,800,000 in grant funds, supplemented by approximately \$3 million in City and partner agency matching funds. The grants helped further the City's clean water efforts in San Diego Bay, San Diego River, Chollas Creek, and Mission Bay.

Special projects (data gathering efforts) are an integral tool in the City's effort to leverage limited resources with grant dollars and partnerships with environmental organizations and agencies. Special studies at Mission Bay Park and the mouth of the San Diego River have resulted in the implementation of bacteria source abatement projects. In addition to these water quality improvement projects, the Storm Water Division also participated in six Total Maximum Daily Load (TMDL) programs and numerous special water quality monitoring investigations to determine the sources of various water quality problems. Details are included in the WURMP Annual Reports associated with those watersheds.

In addition to the above mentioned special projects, the Storm Water Division achieved many other successes in implementing the JURMP in FY 2007.

- Completed post-construction monitoring of the Mission Bay Central Computerized Irrigation System. The final Project Report was submitted to the State Grant Manager.

- Completed the San Diego Bay Common Ground Project and the final Project Report was submitted to the State Grant Manager.
- Completed construction of the San Diego River – Ocean Beach Water Quality Improvement Project, Phase II, flap gate in November 2006 and the project was completed in December 2006.
- Eliminated 12 illicit discharges in FY 2007.
- Continued its efforts to seek out and abate illegal discharges and was responsible for issuing 880 notices of violation, 456 citations, and 157 civil penalties.
- The City continued implementing the *Storm Water Standards Manual* in FY 2007 and began revising the manual to reflect new requirements in the new Municipal Permit.
- Approximately 76,000 mailing inserts accompanying business license renewals and business tax certificate mailings were distributed to industrial and commercial businesses. They served to educate businesses of the City's storm water best management practices requirements and the Storm Water Ordinance.

17.1.2 Challenges

The City faces significant challenges in effectively gathering and managing storm water program data. With a growing population of over 1.2 million residents and 237 square miles of urbanized development, the City is huge relative to other jurisdictions in the region. The enormity of the data management challenge is something the Storm Water Division is continually working to overcome. To address the need for effective data management capabilities, as of the writing of this report in FY 2008, the Storm Water Division completed a division-wide data needs assessment and began developing an integrated database and software system. The system will be designed to manage data City-wide, with a web-based interface so that City departments can easily submit JURMP data to the Storm Water Division. As of the writing of this report, the Storm Water Division is continuing efforts to expand and improve its industrial program database. These efforts will form the foundation for future improvements, especially in light of the 2007 Municipal Permit needs.

In addition to the Municipal Permit, the City must also simultaneously comply with the requirements of other regulatory programs, such as Areas of Special Biological Significance (ASBS), Total Maximum Daily Loads (TMDLs), and Cleanup and Abatement Orders (CAOs). Although these regulatory programs are separate from the Municipal Permit, their ultimate goal is the same—the improvement and protection of the region's water quality. The convergence of these regulatory programs mandates that the City devote resources to advance planning efforts and nurture even stronger bonds and partnerships with other stakeholders in the region to achieve its goal of improved water quality.

17.2 FUTURE RECOMMENDATIONS

To continue to improve program efforts, the Storm Water Division has identified three major program goals, as detailed below.

- Employ an integrated “Strategic Approach” to program implementation. The City is subject to multiple water quality regulatory programs, namely: the Municipal Permit, TMDLs, ASBS, and CAOs. By setting stringent water quality standards that the City must meet, these regulatory programs in effect mandate the implementation of structural (e.g.,

capital improvement projects) and non-structural (e.g., education and outreach, street sweeping) activities. Given that these regulatory programs essentially require similar, parallel efforts, careful program coordination is needed to avoid unnecessary overlapping efforts, wasted resources, and loss of time. Therefore, the City is employing an integrated approach towards meeting the requirements of these regulatory programs simultaneously. The Storm Water Division began planning for an integrated approach to implementation called the "Strategic Plan for Watershed Activity Implementation" in FY 2006 and continued to employ this "Strategic Approach" in FY 2007. Although initially the focus will be on the City's watershed-based programs and activities (particularly in the Chollas Creek, Tecolote, and Rose subwatersheds), implementation and assessment of these activities will ultimately help improve the City's jurisdictional activities as knowledge is gained from the watershed-based efforts may be implemented City-wide.

- Improve data management, reporting and assessment. Also important, the City will be working with the other Copermitees in refining their reporting and effectiveness assessment standards to facilitate cross-jurisdictional and cross-programmatic comparisons and evaluations. The refined standards will lead to a more regionally-integrated approach to water quality improvement efforts. In addition to continued inter-jurisdictional cooperation, the Storm Water Division will be using the program updates that will be required by the next Municipal Permit as an opportunity to coordinate with its various departments and further increase City employee awareness of storm water pollution prevention principles as they go about their daily business. The anticipated commencement in the latter half of FY 2007 of the process to update the JURMPs and WURMPs and develop the RURMP will provide the context for achieving these City objectives.
- Study needs and options for storm water-dedicated funding sources. Staff continued to study long-term, dedicated funding mechanisms in FY 2007, including an increase in the current storm drain fee, to support the anticipated ramping up in the City's storm drain and water quality protection programs over the long run. This effort included analysis of projected program needs. However, over the near term, the City will continue to pursue short-term alternative funding sources, such as grants, for urban runoff management and water quality protection. Currently, the City is benefiting from a number of grant-funded projects that will reduce pollutants. The City will also continue to partner with other stakeholders to develop water quality projects in order to compete for grant funds and leverage outside sources of funding. Staff will continue to work closely with the other storm water program managers in the region to collaborate on program implementation strategies. It is the City's objective to institute the most effective and efficient strategies in the San Diego region to clean and protect its creeks, beaches, and bays for future generations.

To provide focus for program improvements in FY 2008, the Storm Water Division has identified the following specific objectives:

- Continue "Strategic Approach" to planning program efforts;
- Refinement and/or expansion of the Division's data management and tracking capabilities;
- Improvements in monitoring to aide in program and activity effectiveness assessment;
- Refinement/increase in municipal training;

- Revising and updating of the City's JURMP in response to Order No. 2007-0001;
- Implementation of new requirements in accordance with Order No. 2007-0001.

17.3 PROPOSED PROGRAM AMENDMENTS

The City will be implementing a revised Program as required by the new Municipal Permit (Order No. 2007-0001), effective March 24, 2008 and any program amendments or changes will be part of the City's revised JURMP.